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# AMERSTAT 251

## MICROBIOCIDES

EPA REG. NO. 1757-79

EPA EST NO. 1757-AU-01 18533-KS-2  
1757-TX-01

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### DANGER

**CORROSIVE - CAUSES EYE DAMAGE AND SKIN BURNS. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF INHALED. MAY BE FATAL IF SWALLOWED OR ABSORBED THROUGH SKIN.**

Do not get in eyes, on skin, on clothing. Wear goggles or face shield and rubber gloves when handling. Avoid breathing vapor or mist. Avoid contamination of food. Do not take internally. Wash thoroughly after handling.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. Do not discharge effluent containing this active ingredient into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State, Tribal or Regional Office of the EPA.

#### DIRECTIONS FOR USE

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

#### STORAGE AND DISPOSAL

**STORAGE:** Do not contaminate water, food or feed by storage or disposal. Avoid extreme heat or freezing. Store in ventilated area.

**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:** 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. Plastic containers may be alternatively disposed of by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

AMERSTAT 251 is a broad spectrum anti-microbial product designed to prevent microbial contamination in synthetic latex emulsion systems and wet-laying fluids and for control of bacterial and fungal slime in paper making systems.

AMERSTAT 251 microbicide is a highly effective aqueous preservative designed to reduce bacterial and fungal contamination of natural and synthetic adhesives during manufacturing, storage and use. It is extremely effective in reducing spoilage in adhesives formulated with animal, protein, vegetable, polyvinyl acetate, polyvinyl alcohol and styrene-butadiene ingredients.

12/92 (6071)

(DIRECTIONS FOR USE CONTINUED ON RIGHT PANEL)

CORROSIVE LIQUID, N. D. S.  
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE  
CORROSIVE MATERIAL, UN 1760

ACTIVE INGREDIENTS: 5-Chloro-2-methyl-4-isothiazolin-3-one	1.15%
2-Methyl-4-isothiazolin-3-one	0.35%
INERT INGREDIENTS:	98.50%
TOTAL	100.00%

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

**FIRST AID STATEMENT OF PRACTICAL TREATMENT**

If in EYES: Flush with plenty of water for at least 15 minutes. Call a physician.

If on SKIN: Wash thoroughly with soap and water. Remove and wash contaminated clothing before reuse.

If SWALLOWED: Do not induce vomiting. 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 physician immediately.

If INHALED: Move immediately to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Call a physician.

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

#### SOLD BY:

**Drew Industrial Division**



Ashland Chemical, Inc.  
Subsidiary of Ashland Oil, Inc.  
One Drew Plaza, Beenton, New Jersey 07805  
24-HOUR EMERGENCY TELEPHONE  
1-(800) 274-5263 or 1-800-ASHLAND  
AMERSTAT & THE TRITON logo are registered trademarks of Ashland Oil, Inc., used by Drew Chemical Industrial Division.

IMPORTANT NOTICE: Seller warrants that the product conforms to its chemical description and to reasonably fit for the purpose stated on the label under normal conditions of use. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL, OR IMPLIED. THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN OTHER RESPECTS THAN AS EXPRESSLY SET FORTH HEREIN, ARE EXPRESSLY EXCLUDED AND DISCLAIMED.

**FOR INDUSTRIAL USE ONLY**  
**NET CONTENTS MARKED ON DRUM**



(DIRECTIONS FOR USE CONTINUED)  
AMERSTAT 251 can also be incorporated against several slurries, such as clay, calcium carbonate and titanium dioxide to reduce bacterial and fungal contamination and thus maintain product integrity.

AMERSTAT 251 is effective as a preservative in aqueous metal-working fluids and to control bacteria and fungi in printing inks, fountain solutions, and photo plate processing.

Refer to AMERSTAT 251 microbicide Product Data Sheet for use directions and other technical information.

**ACCEPTED**  
**JAN 13 1993**  
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 1757-79

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## Introduction

AMERSTAT 251 microbiocide is a broad-spectrum antimicrobial designed to control bacterial and fungal contamination in aqueous systems.

## Typical Properties

Appearance:	Pale green to yellow liquid
Odor:	Little or none
pH:	2.0-5.0 (neat)
Specific Gravity:	1.02
Density Lb/Gal:	8.5
Solubility:	Soluble in water in all proportions
Compatibility:	Physically and biologically with anionic, nonionic and cationic surfactants
Storage Stability:	Stable at least six months at 50°C and one year at ambient temperature
Active Ingredients:	A combination of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one

## Important Features

AMERSTAT 251 microbiocide provides:

- broad spectrum control of microorganisms.
- easy handling in a liquid form.
- effectiveness at low concentrations.
- resistance to the inhibitory effect of organic and inorganic compounds.

AMERSTAT 251 microbiocide is not recommended for use in potable water systems or where contamination of potable water can occur.

This data sheet is designed to assist you in the use of AMERSTAT 251 microbiocide. It includes application approval areas and suggested dosage rates.

## Application and Dosage

The dosage required for a specific application will depend upon a number of factors, including: the nature and extent of the microbiological contamination, the type and volume of the system being treated, degree of control and retention time in the system, and pH of the product. The optimum dosage level and compatibility is routinely established through laboratory testing. Contact your Drew representative for microbiological and chemical analyses.

## Synthetic Latex Preservative

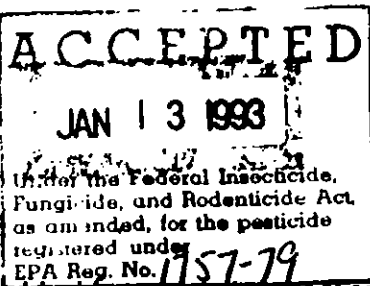
AMERSTAT 251 microbiocide is a broad-spectrum antimicrobial product designed to prevent microbial contamination in synthetic latex emulsion systems. AMERSTAT 251 microbiocide provides:

- effective control of a wide range of spoilage organisms.
- easy handling and pumping in liquid form.
- effectiveness at low use levels.
- resistance to the inhibitory effect of organic and inorganic compounds.
- compatibility with most latex emulsion systems such as acrylic, polyvinyl acetate, vinyl acrylic and styrene butadiene.

The recommended dosage range level for latex preservation is 0.01 to 0.1% based on total weight of product. The most efficient range level is 0.02% to 0.06%. Compatibility must be part of the evaluation.

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## Adhesives

AMERSTAT® 251 microbiocide reduces bacterial and fungal contamination in natural (animal, protein and vegetable glues) and synthetic (polyvinyl acetate, ethylene vinyl acetate, styrene butadiene latices, etc.) adhesives. The normal recommended dosage range is 0.01% to 0.10% based on the total formulation weight of the adhesive. A higher incorporation level, from 0.1% to 0.3% on a total weight basis, will be required in highly susceptible adhesives. The product can be added neat or diluted with water. AMERSTAT 251 microbiocide can be incorporated with agitation either into the makeup water blend or post-added.

## Pulp and Paper Mill Systems

AMERSTAT 251 microbiocide is a broad-spectrum anti-microbial product designed to control bacterial and fungal slimes in papermaking systems. Dosage of AMERSTAT 251 microbiocide will vary from 0.44 to 1.5 lbs (7 to 23 fluid ounces) per ton (dry basis) of finished paper produced, depending upon the type of stock, raw water and degree of contamination. Badly fouled systems should be cleaned before initial treatment.

AMERSTAT 251 microbiocide is typically slug-fed with a chemical metering pump linked to a timer. It should be added to a point in the system to insure uniform mixing such as the beater, hydropulper, fan or broke storage pumps. Specific feeding points and schedules will be recommended by a Drew representative for the particular application.

## Mineral Slurries/Colorants

For mineral slurries, such as clay and calcium carbonate and other aqueous colorants, the recommended dosage range is 0.01% to 0.05% on the total formulation weight. In severely contaminated systems, a higher dosage level of 0.05% to 0.2% on the total formulation weight may be required. AMERSTAT 251 microbiocide is generally post-added, under slight agitation, into the mineral slurry or colorant before being stored or shipped.

## Metal Working Fluids

To maintain an uncontaminated system, a minimum dosage level of approximately 225 ppm (1.93 pounds or 29 fluid ounces per 1000 gals. of water) of AMERSTAT 251 microbiocide every four weeks would be appropriate.

Every eight to twelve weeks, 250-1200 ppm (2.07 - 9.94 pounds or 31-148 fluid ounces per 1000 gals. of water) of AMERSTAT 251 microbiocide would be appropriate.

For a noticeably fouled system, an initial treatment at a dosage range of 500-1160 ppm (4.14-9.63 pounds or 62-143 fluid ounces per 1000 gallons of water in the system) would be suitable followed by maintenance dosages. Higher dosages and more frequent treatments may be needed, depending on the rate of dilution of the preservative in the makeup fluid, the nature and severity of contamination, the level of control required, the effectiveness of filtration and the system design.

## Ink / Ink Components / Fountain Solutions / Photo Plate Processing

AMERSTAT 251 microbiocide is recommended for water-based printing inks such as flexographic, gravure, screen and ink jet types.

AMERSTAT 251 microbiocide is recommended for the control of bacteria and fungi in printing ink components such as resins, plasticizers, water soluble dyes, pigments, gelling agents, waxes, surfactants, and thickeners.

AMERSTAT 251 microbiocide is recommended for the control of bacteria and fungi in fountain solutions and photo plate processing such as stabilizer solutions. AMERSTAT 251 should be added to the fountain solution concentration or processing chemical concentrate at a level to ensure optimum preservation. The recommended dosage range for ink, ink components, fountain solutions and photo plate processing chemicals is 0.1% to 1.0% on a total weight basis. The optimum level range for acidic fountain solutions is 0.2% to 0.5% and for neutral fountain solutions the level range is 0.5% to 0.8%. A level adjustment may be necessary to accommodate the slight change in solution formulations.

## FDA Status

AMERSTAT 251 microbiocide is FDA acceptable in accordance with 21 CFR Sections 175.105 (components of adhesives used in articles intended for packaging, transporting, or holding food), 176.17C (components of paper and paperboard in contact with aqueous and fatty foods) and 176.180 (components of paper and paperboard in contact with dry food).

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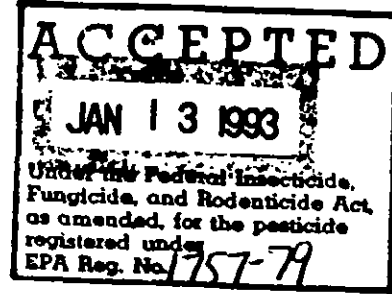
## Packaging

AMERSTAT® 251 microbiocide is sold in 55 gallon plastic drums, six gallon plastic pails, semi-bulk storage containers and bulk tankwagon quantities.

### Important Information

Drew maintains Material Safety Data Sheets on all of its products. Material Safety Data Sheets contain health and safety information for your development of appropriate product handling procedures to protect your employees and customers.

Our Material Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using Drew's products in your facilities.



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