

**DANGER**

**MAY BE FATAL OR HARMFUL IF SWALLOWED  
MAY BE ABSORBED THROUGH THE SKIN**

Keep Out of Reach of Children. Corrosive. Causes severe eye and skin damage. Do not get in eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves when handling. Harmful or fatal if swallowed. Avoid contamination of food.

**FIRSTAID:** 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. Measures against circulatory shock, respiratory depression and convulsion may be needed.

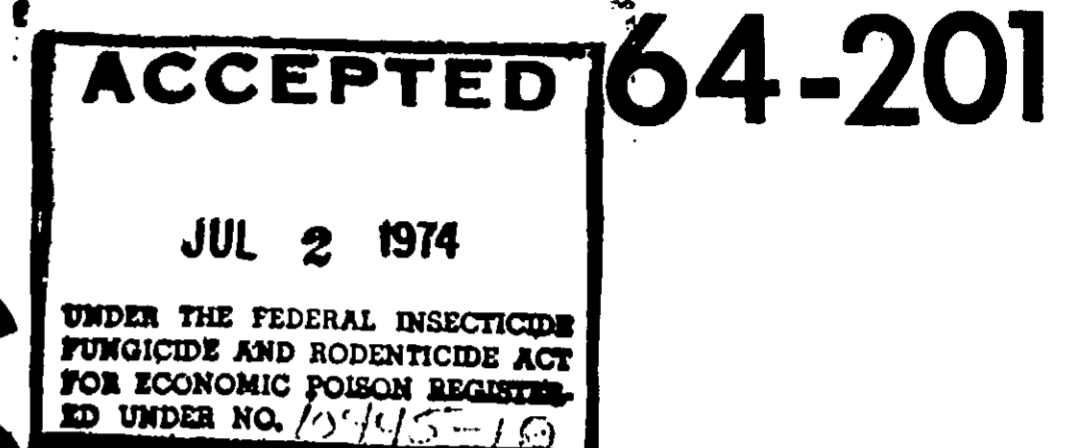
Do not mix H-106 with other chemicals, particularly oxidizing agents such as chlorine, since such mixtures can form potentially explosive compounds.

Do not reuse empty drum. Return to drum reconditioner or destroy by perforating or crushing and burying in a safe place.

This product is toxic to fish. Treated effluent should not be discharged where it will drain into lakes, streams, ponds, or surface water. Do not contaminate water by cleaning of equipment, or disposal of wastes. Apply this product only as specified on this label.



SUBSIDIARY OF MERCK & CO., INC.



# H-106 MICROBIOCIDES

**FOR CONTROL OF BACTERIA IN INDUSTRIAL  
RECIRCULATING COOLING WATER TOWERS**

**DANGER: KEEP OUT OF REACH OF CHILDREN**  
See left panel for First Aid and additional precautions (or dangers).

**NET CONTENTS 5 GALLONS**

**DIRECTIONS FOR USE**  
SEE H-106 MICROBIOCIDES CHEMICAL  
PRODUCT BULLETIN NO. 11-10b

**Active Ingredients:**  
n-Alkyl (60% C<sub>14</sub>, 30% C<sub>16</sub>, 5% C<sub>12</sub>,  
5% C<sub>18</sub>) dimethyl benzyl ammonium  
chlorides\*..... 40%

**Inert Ingredients:**  
Water, Isopropanol, Color..... 60%

\*Equivalent to 3.26 lbs/Gal.

E.P.A. Registration No. 10445-10  
E.P.A. Est. No. 10445-P-1

Made in U. S. A.

**H-106  
MICROBIOCIDES**

**CALGON CORPORATION**  
CALGON CENTER • PITTSBURGH, PA. 15230

**H-106  
MICROBIOCIDES**

## description

H-106 Microbiocide is a liquid, wide-spectrum, organic product based on quaternary ammonium compounds formulated for maximum effectiveness in industrial recirculating cooling water towers.

## purpose

H-106 reduces and controls the growth of bacteria normally encountered in cooling water systems.

## advantages

- Nonoxidizing and nonvolatile; will not harm cooling tower wood
- Noncorrosive to system metals
- Odorless at use concentrations
- Surface-active properties aid in cleaning system
- Compatible with other treatment at use concentrations
- Highly tolerant of pH value and solids content of water

## method of feeding

Badly fouled systems should be cleaned before initiating treatment. Slug feed H-106 as received — do not mix with other chemicals. Do not overfeed.

Treatment should be applied at cooling tower sump, suction side of recirculating pump, or any other point that assures good mixing with system water. Slug feeding should be timed so that the entire dose is applied within a one-hour period.

Recommended dosages allow for normal water loss due to evaporation, drift and system blowdown and afford adequate contact time with organisms. Your Calgon representative will provide technical assistance in determining optimum dosages in relation to specific plant conditions or problems.

**Initial dosage:** If system is noticeably fouled, slug feed 10.4 to 13.2 fluid ounces of H-106 Microbiocide per 1000 gallons of water in the system (80 to 100 ppm). Repeat until control is achieved.

**Subsequent dosage:** After bacterial control is achieved, feed 3.3 to 6.6 fluid ounces of H-106 Microbiocide per 1000 gallons of water in the system (25 to 50 ppm). Apply treatment two to three times per week, or as needed to maintain control.

## control

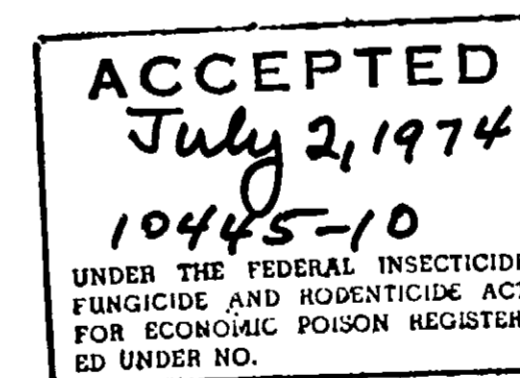
No control testing is required other than visual examination of areas where bacteria is normally a problem. To supplement visual examination, a total plate count evaluation may be performed.

## specifications

appearance	pink liquid
odor	mild
specific gravity	0.975
weight per gallon	8.14 lbs
flash point (TOC)	above 200° F
pH of 1% solution	6.0
viscosity	41 cps @ 25° C
freezing point	39.5° F



Microscopic organisms breed rapidly in open recirculating water systems and impair the efficient operation of cooling towers. Sunlight, warm water, oxygen and nutrients of air-borne or process origin can stimulate prolific growth of algae, mold, diatoms or bacteria in the absence of a suitable microbiocide.



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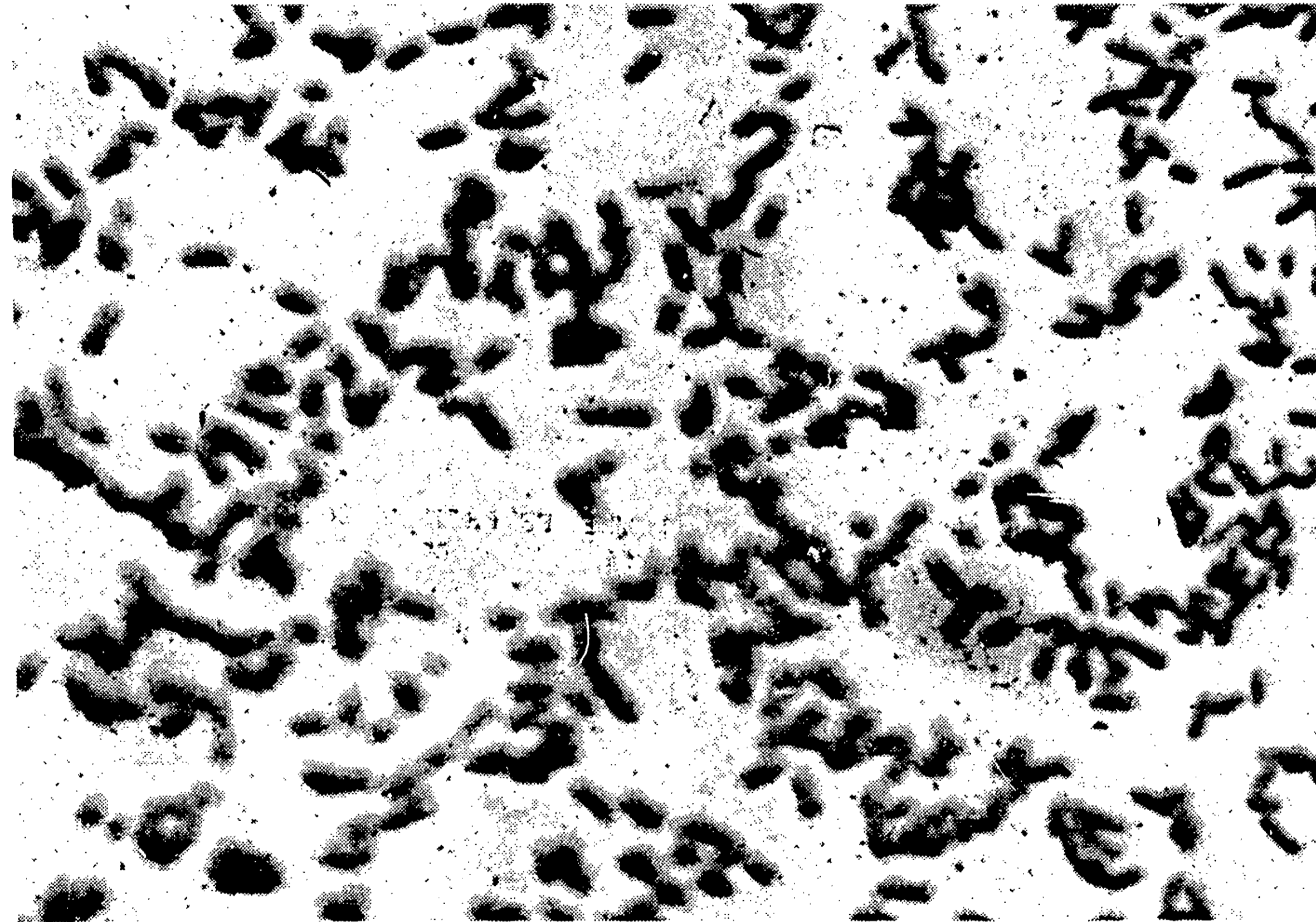
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ACCEPTED  
July 2, 1974  
10415-10

REGISTRATION  
PESTICIDES. EPA

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Micrograph (970x) of aerobic bacteria. Prolific growths of bacteria in a cooling system will be in the form of slimy zoogloal masses which may interfere with heat transfer. In addition, bacterial growths will act as a binder for dead algae, mineral sludge or corrosion products.

*Cooling Water Department, Water Management, Division, Calgon Corporation  
P.O. Box 1346, Pittsburgh, Pa. 15230.*



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