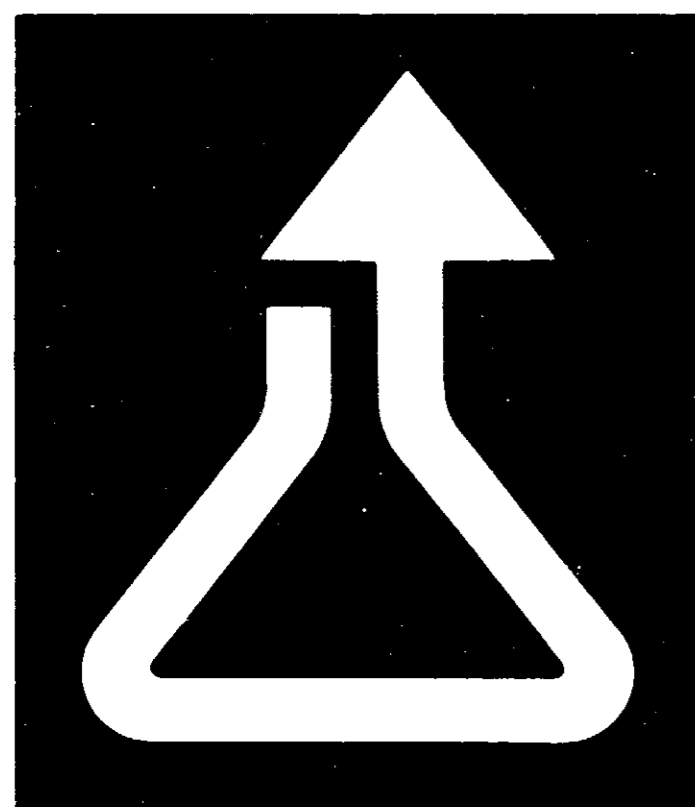


KATHON 886

A METALWORKING FLUID MICROBIOSTAT



**ROHM
AND
HAAS**

PHILADELPHIA, PA. 19105

**KEEP OUT OF REACH OF CHILDREN
DANGER—POISON**



SEE FIRST AID STATEMENT AND OTHER
PRECAUTIONS ON SIDE PANEL.

ACTIVE INGREDIENTS

5-chloro-2-methyl-4-isothiazolin-3-one calcium chloride	55.0%
2-methyl-4-isothiazolin-3-one calcium chloride	15.0%

INERT INGREDIENTS

Total	30.0%
	100.0%

EPA Reg. No. 707-125

EPA Est. No. 707-PA-1

ACCEPTED

NET CONTENTS

JUL 27 1976

UNDER THE FEDERAL INSECTICIDE
FUNGICIDE AND RODENTICIDE ACT
FOR FAILURE TO COMPLY WITH
EPA ORDER NO. 707-125 **LBS.**

DIRECTIONS FOR USE

Kathon 886 is useful in the control of bacteria and fungi. Kathon 886 should be used only in accordance with directions in the Technical Bulletin furnished by the manufacturer.

Do not reuse container. Destroy when empty.

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

DANGER!

CORROSIVE

CAUSES EYE DAMAGE AND SKIN BURNS

MAY CAUSE ALLERGIC SKIN REACTION

HARMFUL IF INHALED

HARMFUL OR FATAL IF SWALLOWED OR

BROUGHT IN CONTACT WITH SKIN

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

FIRST AID

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 re use.

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.

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use, storage or handling of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.



KATHON 306

METALWORKING FLUID PRESERVATIVE

INTRODUCTION

Kathon 306 is a new antimicrobial product offered for use as a bacteriostatic and fungistatic preservative in aqueous metal working fluids. It is effective at low concentrations and is highly resistant to the inhibitory effects of most organic and inorganic compounds.

A. EVALUATION AS A METALWORKING FLUID PRESERVATIVE

The relatively low concentrations of Kathon 306 required to control the growth of microorganisms as well as its compatibility characteristics and its non-surface active properties make this product an excellent metal working fluid preservative candidate.

The utility of Kathon 306 as a metalworking fluid preservative was demonstrated by evaluating antimicrobial activity in the presence of several commercial metalworking fluids according to the following procedure.

Kathon 306 was added in varying amounts to screw-capped jars containing use-dilutions of metalworking fluids. The samples were inoculated at zero time and seven days later with naturally contaminated metalworking fluid (of the same type under study) and a suspension of *Freund's* *Shewanella* (recovered from a contaminated oil). A very high inoculum count was used in these tests. The inoculum counts ranged from 3,000,000 to 150,000,000 bacteria per ml cutting oil use dilutions. In addition to the *Freund's* *Shewanella* culture used in the inoculum, the naturally contaminated cutting oil used throughout the tests contained a predominance of pseudomonads resembling *Freund's* *Shewanella* and *Leishmanea aeruginosa*. *Proteus* sp. and *Aeromonas* sp. were also present in the inoculum in addition to filamentous fungi, including *Aspergillus* sp. and *Penicillium* sp. With each inoculation, 0.1 percent nutrient agar crystals were added to each sample as an additional nutrient source. Effective preservation was indicated by the absence of viable microorganisms or the presence of low numbers of microorganisms which did not increase markedly after an additional month of incubation.

The effectiveness of Kathon 306 was determined in the recommended use dilutions of five primary cutting oils (especially prepared by the manufacturer without a microbicide) and was compared with a commercially available cutting oil preservative. The results of this test, run in duplicate and summarized in Table I, indicate this new material to be a highly effective preservative in use dilutions.

B.

TABLE I

EVALUATION OF KATHON 306 AND COMPOUND A¹ AS METALWORKING FLUID PRESERVATIVES OF FIVE PRIMARY CUTTING OILS

Cutting Oil Inoculum	Marginal Pass Concentration, CFU/ml					
	4	5	10	25	50	100
A	5	40	80	100 ^a	100 ^a	100 ^a
B	5	10	10 ^a	100	1000	1000
C	5	50	100	500	>1000	>1000
D	10	25	25	250 ^a	1000 ^a	1000 ^a
E	10	25	100	500	1000	1000 ^a

^aMarginal pass; low counts at indicated concentration, mostly fungi.

¹Compound A is a commercially available cutting oil preservative based on hexahydro-tris(hydroxyethyl) triazine.

The data in Table I indicates that Kathon 306 is an excellent preservative for metalworking fluids. Kathon 306 is highly effective at low concentrations in use dilutions of metalworking fluids and is stable in use dilutions concentrated for prolonged periods of time. Since it is not surface active, Kathon 306 will not interfere with the physical characteristics of metalworking fluids.

DIRECTIONS FOR USE

Kathon 306 is recommended for use in aqueous metalworking fluids, such as emulsified petroleum oils, and for use in metalworking fluids of fatty acid, sulfonated oil, or synthetic oil base. Recommended use dilutions are prepared by diluting the product concentration listed in Table I.

For the maintenance of a metalworking fluid, the recommended use dilution should be added to the fluid at the time of its preparation, or at intervals of 2-4 weeks, or 2-4 months, depending on the type of fluid and the conditions of use. The recommended use dilution should be added to the fluid at the time of its preparation, or at intervals of 2-4 weeks, or 2-4 months, depending on the type of fluid and the conditions of use. The recommended use dilution should be added to the fluid at the time of its preparation, or at intervals of 2-4 weeks, or 2-4 months, depending on the type of fluid and the conditions of use.

An alternative method of maintaining the effectiveness of Kathon 306 in metalworking fluids is to add a small amount of Kathon 306 to the fluid at the time of its preparation, or at intervals of 2-4 weeks, or 2-4 months, depending on the type of fluid and the conditions of use.

ROHM AND HAAS COMPANY
NEW BRUNSWICK, NEW JERSEY
PHILADELPHIA, PENNSYLVANIA