INDUSTRIAL NIICROBICIDE

FOR THE PRESERVATION OF ADHESIVES, JOINT CEMENTS, LATEX EMULSIONS, METALWORKING/CUTTING FLUIDS, AND LEATHER AT ALL STAGES OF PRODUCTION

Active Ingredients:

PARACHLOROMETACRESOL99.9%

Inert Ingredients0.1%

DANGER • KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER/CORROSIVE: Causes severe eve and skin damage. Do not get in eyes, skin or on clothing. May be fatal if swallowed or absorbed through skin. Precautions should include the use of eye shields, rubber gloves and protective clothing. Do not breathe spray dust. Use with adequa.3 ventilation. Wash thoroughly after handling. In case of severe burns medical attention should be obtained immediately. Remove and wash contaminated clothing before reuse. For first aid instructions, see "Statement of Practical Treatment" section.

PHYSICAL OR CHEMICAL HAZARDS

Corrosive. May be allergenic, avoid skin contact. (Gleason, Gossel, Hodge: Clinical Toxicity of Commercial Products: Williams & Wilkings: 2nd Edition 1963)

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

STATEMENT OF PRACTICAL TREATMENT

If swallowed: Drink large quantities of water. Do not induce vomiting. Call a Physician or Poison Control Center immediately.

If on skin: Wash thoroughly with soap and water for at least 15 minutes

If in eyes: Hold the lids open and flush immediately with a slow stream of water: continue this procedure for 15 minutes. Contact a Physician.

IF IRRITATION PERSISTS SEEK MEDICAL ATTENTION

EPA Reg. No. 39967-12 EPA Est. No. 39967-WG-002

DIRECTIONS FOR USE

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

DISCLAIMER

Seller (whether manufacturer, distributor or other) makes no warranty express or implied, including the implied warranty of merchantability, regarding this product except the composition as set forth in the ingredient statement herein, and shall not be liable for special or consequential damages, the exclusive remedy being replacement of the product. Buyer or user assumes all risk of possession, handling or use of this material when such use and/or handling is contrary to label instructions.

PEFORMULATORS AND REPACKAGERS OF THIS PRODUCT MUST CITAIN THEIR OWN REGISTRATIONS WITH THE ENVIRONMENTAL 3 IOTECTION AGENCY.

SEE TECHNICAL INFORMATION SHEET NO. N-122 FOR USE DIRECTIONS

STORAGE AND DISPOSAL

PROHIBITIONS. Do not contaminate water food or feed by storage or disposal

PESTICIDE DISPOSAL, Pesticide spray m. re, rinsate or waste resulting m the use of this product may be dispoof on site or at an approved iste disposal facility

CONTAINER DISPOSAL. Completely empty liner by shaking and tapping ides and bottom to loosen clinding particles. Empty residue into application quipment. Then dispose of lines in a sanitary landfill or by incineration if flowed by state and local authorities. If drum is contaminated and cannot e reused, dispose of in the same manner

TORAGE INSTRUCTIONS. Product should be stored in an area that is of subject to extreme temperatures. Proper protective equipment, as dicated above, should be worn when epoling, transferring, and using oduct. Close drum tightly when not in Spill-leak procedures and iditional handling information is contained on the material safety data sheet

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LABEL TEXT DATE 6:14:04



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Organics and Rubber Division

Preventol CMK Preservative N-122

INDUSTRIAL MICROBICIDE FOR THE PRESERVATION OF ADHESIVES, GLUES, JOINT CEMENTS, POLYMER DISPERSIONS AND EMULSIONS, METALWORKING/CUTTING FLUIDS, DYES PIGMENTS AND FILLER SUSPENSIONS, MATERIALS IN THE BUILDING, COATINGS, PAPER, TEXTILE, PHOTO, AND OIL INDUSTRIES, AND LEATHER AT ALL STAGES OF PRODUCTION

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Inert Ingredients0.1%

DANGER • KEEP OUT OF REACH OF CHILDREN

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REFORMULATORS AND REPACKAGERS OF THIS PRODUCT MUST OBTAIN THEIR OWN REGISTRATIONS WITH THE ENVIRONMENTAL PROTECTION AGENCY.

SEE TECHNICAL INFORMATION SHEET NO. N-122 FOR USE DIRECTIONS

STORAGE AND DISPOSAL

PROHIBITIONS. Do not contaminate water, food or feed by storage or disposal.

PESTICIDE DISPOSAL. Pesticide, spray mixture, rinsate or waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL. 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.

STORAGE INSTRUCTIONS. Product should be stored in an area that is not subject to extreme temperatures. Proper protective equipment, as indicated above, should be worn when opening, transferring, and using product. Close drum tightly when not in use. Spill-leak procedures and additional handling information is contained on the material safety data sheet.

NET	CONTENTS	lb:	S.

EPA Reg. No. 39967-12 EPA Reg. No. 39967-WG002

Miles Inc. Fibers, Organics and Rubber Division Mebay Road, Pittsburgh, PA 15205-9741

Product Information/Directions for Use Brochure

Reason for Issue:

To amend the label uses.

Date of Draft:

January 16, 1995

EPA Reg. No. 39967-12

To be printed as several pages.

Preventol CMK Preservative

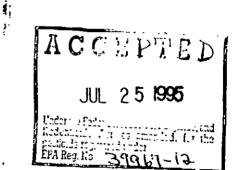
Miles Product Code/Technical Information Sheet No. 122

EPA Registration Number 39967-12 CAS Number 59-50-7

I. FORMULA

II. TYPICAL PROPERTIES

п.	TYPICAL PROPERTIES	
Acti	ive Content (Nominal Concentration)	99.9%
	(Minimum Purity)	99.8%
Phy	sical Form	Pellets
-	ling Point (760mm)	
Boil	ling Point (10mm)	111.0°C
Mel	Iting Point	63-65°C
Solu	ubility-Soluble in most organic solvents, limited s	olubility in water
Der	nsity(20°C)	1.37
	k density (g/liter)	

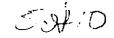


III. PRODUCT

Preventol CMK Preservative is a high purity chemical suggested as a preservative against bacterial deterioration for industrial water based compositions, such as adhesives, joint cements, and latex emulsions to impart package stability, leather at all stages of production and metalworking fluids and cutting oils. The shelf life of the unopened package is a minimum of twelve (12) months. After opening the package the duration of the effectiveness should be maintained for the useful service life of the product.

DETAILED DIRECTIONS FOR USE:

Preventol CMK Preservative is effective against a wide variety of bacteria for the preservation of adhesives, glues, joint cements, polymer dispersions and emulsions, metalworking/cutting fluids, dyes pigments and filler suspensions, materials in the building, coatings, paper, textile, photo, and oil industries, and leather at all stages of production.



THE EXACT CONCENTRATION OF MILES PREVENTOL CMK PRESERVATIVE REQUIRED WILL VARY WITH THE COMPOSITION TO BE PROTECTED. TO REACH OPTIMUM EFFECTIVENESS, FIELD TESTING SHOULD BE CONDUCTED, IN ADDITION TO CONTACTING YOUR MILES REPRESENTATIVE. MICROBIOLOGICAL ASSAY CAN DETERMINE THE LEVEL REQUIRED FOR YOUR PARTICULAR APPLICATION/USE.

Recommended use: The following recommended doses of Preventol CMK Preservative must be used to provide preservative efficiency:

ADHESIVES AND GLUES:

EFFECTIVE CONCENTRATION

David alice	0.10 0.15%
Bone glues	0.10 - 0.15%
Skin glues	0.15 - 0.25%
Fish glues	0.15 - 0.25%
Leather glues	0.15 - 0.25%
Gelatin based glues	0.10 - 0.20%
Casein containing adhesives	0.20 - 0.30%
Other animal glues	0.10 - 0.25%
Starch based glues (liquid)	0.10 - 0.15%
Starch based glues (solid)	0.20 - 1.00%
Dextrin adhesives	0.05 - 0.10%
Hydroxyethyl cellulose adhesives	0.05 - 0.10%
Methyl cellulose adhesives	0.05 - 0.10%
Other plant based adhesives	0.05 - 0.25%
Polyvinyl acetate adhesives	0.05 - 0.25%
Polyvinyl alcohol adhesives	0.05 - 0.25%
Acrylic adhesives	0.05 - 0.25%
Styrene butadiene (SBR latex) adhesives	0.05 - 0.25%
Other adhesive emulsions	0.05 - 0.25%
Gumarabic and similar gums	0.10 - 0.15%
Rosin paper sizes	0.10 - 0.25%

The weight of Preventol CMK Preservative to be used is based on the total weight of the adhesive formulation. The preservative should be incorporated into the adhesive formulation just following the initial addition of water. The adhesive formulation should be stirred to ensure homogeneous distribution.

In many cases, Preventol CMK Preservative is best pre-dissolved in suitable solvent systems such as ethanol or 1,2-propanediol, or by preparation of the preservative in an aqueous caustic soda stock solution to be added to the glues and adhesives to be preserved. In the production of dry glues, Preventol CMK Preservative should be added toward the end of thickening in order to minimize any losses of active substance. A 30% by weight stock solution of Preventol CMK Preservative is prepared as follows: 1.85 liters of water and 0.5 kg of 50% caustic soda solution are added to 1 kg of Preventol CMK Preservative and mixed until homogeneous. The dissolving process can be accelerated by gentle heating. Independent of the method chosen, the preservative must be evenly distributed throughout the adhesive or glue to be preserved in order to achieve satisfactory results.

JOINT CEMENTS:

EFFECTIVE CONCENTRATION

Vinyl latex based	0.075 - 0.20%
Protein based	0.075 - 0.20%
Other joint cement materials	0.075 - 0.20%

5

60/10

The weight of Preventol CMK Preservative to be used is based on the total weight of the joint cement formulation. The preservative should be incorporated into the joint cement formulation just following the initial addition of water or other liquid components sufficient to disperse the preservative. To ensure homogeneous distribution, good stirring is recommended.

POLYMER DISPERSIONS: AND EMULSIONS

EFFECTIVE CONCENTRATION

Acrylic	0.05 - 0.20%
Polyvinylacetate (PVA)	0.05 - 0.20%
Vinyl/Acrylic	0.05 - 0.20%
Styrene Butadiene (SBR Latex)	0.05 - 0.20%
Other Polymer emulsions	9.05 - 0.20%

Preventol CMK Preservative should be added immediately after the preparation of the polymer dispersion or emulsion during the cooling process. Losses of active ingredient caused by elevated temperatures should be taken into account and avoided by suitable measures. For quick homogeneous distribution, Preventol CMK Preservative should be dissolved in suitable solvents such as ethanol, or 1,2-propanediol, or, alternatively by preparation of water dilutable alkaline solutions. These pre-dissolved solutions are then added to the polymer dispersions or emulsions.

LEATHER:

EFFECTIVE CONCENTRATION

Pickle solutions and pickled hides	0.15 - 0.25%
Chrome leather (calculated on pelt weight)	0.10 - 0.20%
Leather pasting adhesives	0.05 - 0.10%
Leather pigment finishes	0.20 - 0.40%

Preventol CMK Preservative may be dissolved in five times the amount of alcohol and then stirred into pickle solutions. In the case of chrome leather, an effective protection against mold attack may be obtained without additional labor by stirring Preventol CMK Preservative together with soda into the basifying solution, since Preventol CMK Preservative dissolves freely in the alkaline solution.

The oil-soluble Preventol CMK Preservative can also be dissolved in the fat liquor and applied in the drum simultaneously. Finished vegetable-tanned leathers and chrome leathers may also be protected against mold attack by a treatment on both sides of the material with an 0.2-0.4% solution of Preventol CMK Preservative.

LUBRICOOLANTS AND MINERAL OIL BASED PRODUCTS:

EFFECTIVE CONCENTRATION

Metalworking Fluids - Mineral Oil Based	
Metalworking fluids (concentrates)	1.00 - 3.00%
Metalworking fluids (ready for use)	0.05 - 0.20%
Metalworking Fluids - Non-Mineral Oil Based	
Metalworking fluids (concentrates)	1.00 - 3.00%
Metalworking fluids (ready for use)	0.05 - 0.20%

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Preventol CMK Preservative can be incorporated into the original concentrate of metalworking fluids by adding the solid preservative under stirring until complete the preservative is completely dissolved (the compatibility of the fluid to be preserved and the preservative should be evaluated before this method is attempted). Preventol CMK Preservative is equally suitable for tank side addition (maintenance). In this case, addition of the pre-dissolved preservative mixture is often more favorable. Suitable solvents for this purpose are, for example, ethanol, or 1,2-propanediol, or, alternatively by preparation of water dilutable alkaline solutions. To achieve maximum distribution within the ready-to-use dilution of the metalworking fluid, the preservative should be dosed [at a point] in the system under conditions which ensure good circulation.

MATERIALS IN THE PRINTING INDUSTRY:

EFFECTIVE CONCENTRATION

Inks	0.05 - 0.20%
Fount solutions	0.05 - 0.20%
Printing pastes	0.20 - 0.30%
Other printing materials and auxiliaries	0.05 - 0.30%

Preventol CMK Preservative is incorporated preferably after pre-dissolution in suitable systems such as ethanol or 1,2-propanediol, or alternatively by preparing water dilutable alkaline solutions, which are added to the products to be preserved. Stirring is recommended to achieve homogeneous distribution of the preservative.

MATERIALS IN THE BUILDING INDUSTRY:

EFFECTIVE CONCENTRATION

Bitumen emulsions	0.15 - 0.40%
Concrete additives	0.15 - 0.40%
Other building materials and auxiliaries	0.15 - 0.40%

Preventol CMK Preservative can be added directly to concrete additive solutions having an alkaline pH-value. The additive solution should be stirred well to dissolve the preservative material efficiently. In the case of neutral or acid concrete additives, it is preferable to incorporate Preventol CMK Preservative first by dissolving it in a suitable solvent such as ethanol or 1,2-propanediol or by converting it to a water dilutable alkaline concentrate. In this pre-dissolved form Preventol CMK Preservative can easily be incorporated into the concrete additives in such a way that preservative is homogeneously distributed throughout the product.

MATERIALS IN THE COATINGS INDUSTRY:

EFFECTIVE CONCENTRATION

Dyestuff paste, knifing fillers and plastic putty	0.10 - 0.15%
Casein based coatings	0.30 - 0.40%
Paints	0.05 - 0.40%
Other auxiliaries and coating materials	0.05 - 0.40%
Synthetic resin dispersions	0.05 - 0.25%

Preventol CMK Preservative can be incorporated directly into pigments and fillers for coatings applications, or it can also be dissolved in a suitable solvent to be incorporated into the make-up water during the grand. For best results, the preservative should be dispersed homogeneously throughout the paint material. Depending on the ingredients, discoloration may occur and should be evaluated before conducting lab trials.

MATERIALS IN THE PAPER INDUSTRY:

EFFECTIVE CONCENTRATION

Rosin paper sizes	0.05 - 0.15%
Filler suspensions and coating compounds	0.05 - 0.20%
Starch slurries	0.10 - 0.30%
Pigment slurries	0.05 - 0.30%
Other materials and auxiliaries	0.05 - 0.20%

Preventol CMK Preservative can be metered directly into the products to be preserved following the concentrations as indicated above. Good stirring is recommended to ensure fast and even distribution of the preservative throughout the products. In many cases it might be preferable to first pre-dissolve Preventol CMK Preservative in suitable solvent systems such as ethanol or 1,2-propanediol, or alternatively by preparation of water dilutable alkaline solutions which then are added to the products to be preserved. Stir well to achieve homogeneous distribution of the preservative. Losses of active ingredient at elevated temperatures should be taken into account and avoided by suitable measures.

Incorporation of Preventol CMK Preservative in dry components of suspensions is possible, if temperature during grinding does not exceed 60°C.

MATERIALS IN THE TEXTILE INDUSTRY:

EFFECTIVE CONCENTRATION

Spinning Preparations	0.05 - 0.15%
Sizes and finishing agents	0.10 - 0.15%
Yarn humidifiers	0.05 - 0.10%
Printing thickeners (solid)	0.05 - 2.00%
Printing thickeners (liquid)	0.10 - 0.15%
Other materials and auxiliaries	0.05 - 0.20%

Preventol CMK Preservative may be incorporated into the dry thickener by evenly mixing with the preservative to result in a pre-preserved, dry product.

Alternatively, incorporation of the preservatuve can be done at the stage of the ready-to-use thickener solution. In this case, Preventol CMK Preservative is best pre-dissolved in suitable solvents such as ethanol or 1,2-propanediol, or an aqueous caustic soda stock solution is prepared and then added to the thickener solutions to be preserved. For fast and homogeneous distribution of the preservative, stirring is recommended.

MATERIALS IN THE PHOTO INDUSTRY:

EFFECTIVE CONCENTRATION

Gelatin	0.05 - 0.20%
Other materials and auxiliaries	0.05 - 0.20%

Incorporation of Preventol CMK Preservative in concentrations as indicated above should be done after pre-dissolving the preservative in suitable solvent systems such as ethanol or 1,2-propanediol or others which are compatible with the individual production process.

MATERIALS IN THE OIL INDUSTRY:

EFFECTIVE CONCENTRATION

Biopolymers, solid

(xanthan, starch, galactomannan, etc.)

Biopolymers, liquid
(drilling muds)

Other materials and auxiliaries

0.50 - 2.00%

0.05 - 0.20%

0.05 - 0.20%

Prever:tol CMK Preservative may be incorporated into the solid by evenly mixing with the preservative to result in a pre-preserved, dry product.

Alternatively, incorporation of the preservatuve can be done at the stage of the ready-to-use drilling mud. In this case, Preventol CMK Preservative is best pre-dissolved in suitable solvents such as ethanol or 1,2-propanediol, or an aqueous caustic soda stock solution is prepared and then added to the thickener solutions to be preserved. For fast and homogeneous distribution of the preservative, stirring is recommended.

ADDITIONAL MATERIALS:

EFFECTIVE CONCENTRATION

0.10 - 0.40%
0.20 - 0.30%
0.05 - 0.20%
0.10 - 0.20%
0.10 - 0.30%
0.10 - 0.30%
0.10 - 0.30%
(

The concentration of Preventol CMK Preservative as indicated is based on total weight of the products to be preserved. Depending on the type of product to be protected, Preventol CMK Preservative can be incorporated either directly or after pre dissolution in siutable solvent systems such as ethanol or 1,2-propanediol, or by preparation of water dilutable alkaline solutions (e.g. in caustic soda). Independent of the method chosen, for satisfactory results, the preservative must be achieved for example, by incorporation of the preservative into the make- p water at the beginning of the production and/or generally by stirring at every appropriate production stage.

DANGER: MAY BE ALLERGENIC, AVOID SKIN CONTACT. "MAY BE FATAL IF SWALLOWED OR ABSORBED THROUGH SKIN! MAY PRODUCE SEVERE BURNS! DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. AVOID SPRAY MIST. WASH THOROUGHLY AFTER HANDLING."

VI. MINIMUM INHIBITION CONCENTRATIONS OF PREVENTOL CMK PRESERVATIVE, (DETERMINED ON SPECIAL NUTRIENT MEDIA)

Microorganisms Bacteria	Minimum Inhibition Concentration mg/liter
Aeromonas Punctata	200
Bacillus subtilis	150
Escherichia coli	250
Leuconostoc mesenterioides	200
Proteous vulgaris	200
Pseudomonas aeruginosa	800
Pseudomonas flourescens	800

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Microorganisms Bacteria Cont.	Minimum Inhibition Concentration mg/liter
Staphylococcus aureaus Desulfovibrio desulfuricans Formaldehyde-resistant bacteria	200 35 250
Yeast	
Candida albicans Torula rubra	200 50
Mold Fungi	
Aspergillus flavus Aspergillus niger Aureobasidium pullulans Chaetomium globosum Cladosporium herbarum Coniophora puteana Paecilomyces variotii Penicillum citrinum Penicillum glaucum Trichophyton pedis Trichoderma viride	100 100 30 80 200 100 200 100 100 100

NOTICE: This product is for industrial use only by persons having technical skill in formulation coatings, adhesives, elastomers, paints and the like. MILES INC. MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THE GOODS WHEN NOT USED IN STRICT ACCORDANCE WITH DIRECTIONS AND RECOMMENDATIONS GIVEN HEREWITH. Recommendations for the use of this product are based on laboratory tests that Miles considers to be reliable. The performance of this product varies from application to application. Miles is not responsible for results when the product is used with incompatible or contaminated raw materials; when the product is used under unsanitary conditions; or when manufacturing equipment is constructed of such raw materials as to inactivate this product. Under no circumstances will Miles be liable for consequential damages or damages to anyone in excess of the purchase price of the product. User assumes all risks of use, storage, and handling, nor in strict accordance with the precautionary statements and storage recommendations on the labeling.