

Preventol[®] CMK Preservative

FOR THE PRESERVATION OF ADHESIVES, GLUES, JOINT CEMENTS, POLYMER DISPERSIONS AND EMULSIONS, METALWORKING/CUTTING FLUIDS, DYES, PIGMENTS AND FILLER SUSPENSIONS, MATERIALS IN THE BUILDING INDUSTRY (E.G., CONCRETE ADDITIVES, JOINT CEMENTS), PAINT AND COATINGS, PAPER, TEXTILE, PHOTO, OIL INDUSTRIES AND LEATHER AT ALL STAGES OF PRODUCTION.

ACTIVE INGREDIENT: *p*-Chloro-*m*-cresol _____ 99.95%
INERT INGREDIENTS _____ 0.05%
TOTAL _____ 100.0%

DANGER! KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER! Corrosive: Causes irreversible eye damage or skin burns. May be fatal if inhaled. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wear protective eye wear (goggles, face shield, or safety glasses). Wear protective clothing with a long sleeved shirt, long pants, socks, shoes, chemical resistant gloves, and an apron. Wash thoroughly with soap and water after handling and before eating, smoking, drinking, or using tobacco. Remove contaminated clothing and wash clothing before reuse. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE): if no such instructions, for washables use detergent and hot water. Keep and wash PPE separately from other laundry.

FIRST AID

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told by the poison control center or doctor.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

The LANXESS Pittsburgh Emergency Response Telephone Number is 800-410-3063

Have the product container with you when calling a poison control center or doctor or when going for treatment.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, 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 the discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

IN CASE OF EMERGENCY, CALL: CHEMTREC 800-424-9300
EPA REGISTRATION NUMBER: 39967-12
EPA ESTABLISHMENT NUMBER: 39967-

LANXESS

LANXESS Corporation
111 RIDC Park West Drive • Pittsburgh, PA 15275-1112

DIRECTIONS FOR USE

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

Detailed information on physical and chemical properties and other detailed directions for use can be found in the Preventol CMK Preservative Technical Information Sheet. Obtain and read this information before undertaking the use of Preventol CMK Preservative in order to avoid process mistakes.

STORAGE AND DISPOSAL

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

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 the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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

CONTAINER DISPOSAL: Completely empty liner. Empty residue into application equipment. Dispose of liner in a sanitary landfill, by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed above.

DISCLAIMER: Seller (whether manufacturer, distributor, or other) makes no warranty expressed 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 the 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.

² Preventol is a registered trademark of LANXESS Corporation.

INTERNATIONAL 703-527-3887
Net Contents: Pounds
Lot No.:

ACCEPTED
NOV 17 2006
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 39967-12

LABEL TEXT DATE: 11/01/04 00140965

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11/17/2006

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Energizing Chemistry

PREVENTOL CMK Preservative

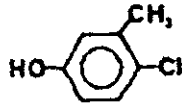
DIRECTIONS FOR USE

LANXESS PRODUCT
EPA Registration Number: 39967-12
CAS # 59-50-7

Preventol CMK Preservative

LANXESS Product Code/Technical Information
EPA Registration Number 39967-12
CAS Number 59-50-7

I. FORMULA



II. TYPICAL PROPERTIES

Active Content (Nominal Concentration).....	99.9%
(Minimum Purity)	99.8%
Physical Form	Pellets
Boiling Point (760mm)	239°C
Boiling Point (10mm)	111.0°C
Melting Point	63-65°C
Solubility-Soluble in most organic solvents, limited solubility in water	
Density(20°C).....	1.37
Bulk density (g/liter).....	approx. 630

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.

Parachlorometacresol, the active ingredient in Preventol CMK Preservative, is approved under Title 21, Chapter 1, Food and Drug Administration, Department of Health and Human Services, Subpart B, Section 175.105, as a preservative component of adhesives intended for use in packaging, transporting or holding food. It is also approved for use under Section 178.3120 as a preservative in the manufacture of animal glue intended for use in packaging, processing, preparing treating, packaging, transporting, or holding of food.

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 LANXESS 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 LANXESS 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
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%

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	0.05 - 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.

**LUBRICOLANTS AND
MINERAL OIL BASED PRODUCTS:**

EFFECTIVE CONCENTRATION

Straight oils (Mineral-oil based)	
(concentrates)	1.00 - 3.00%
(ready for use)	0.05 - 0.20%
Soluble oils (oil emulsions, aqueous)	
(concentrates)	1.00 - 6.00%
(ready for use)	0.05 - 0.30%
Semi-synthetic (emulsions, aqueous)	
(concentrates)	1.00 - 6.00%
(ready for use)	0.05 - 0.30%
Synthetic (solutions)	
(concentrates)	1.00 - 6.00%
(ready for use)	0.05 - 0.30%

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%
Other auxiliaries and coating materials	0.05%
Synthetic resin dispersions	0.05%

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 grind. 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 preservative 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.)	0.50 - 2.00%
Biopolymers, liquid (drilling muds)	0.05 - 0.20%
Other materials and auxiliaries	0.05 - 0.20%

Preventol 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 preservative 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

Polishing and wax material	0.10 - 0.40%
Protein solutions	0.20 - 0.30%
Cleaning solutions, detergents	0.05 - 0.20%
Ceramic glazes	0.10 - 0.20%
Fire extinguishing materials	0.10 - 0.30%
Materials and auxiliaries in the leather industry	0.10 - 0.30%
Cosmetic and toiletry raw materials	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 suitable 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-up 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	Minimum Inhibition Concentration mg/liter
Bacteria	
Aeromonas Punctata	200
Bacillus subtilis	150
Escherichia coli	250
Leuconostoc mesenterioides	200
Proteous vulgaris	200
Pseudomonas aeruginosa	800
Pseudomonas fluorescens	800

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Microorganisms
Bacteria Cont.

Minimum Inhibition
Concentration mg/liter

Staphylococcus aureus	200
Desulfovibrio desulfuricans	35
Formaldehyde-resistant bacteria	250

Yeast

Candida albicans	200
Torula rubra	50

Mold Fungi

Aspergillus flavus	100
Aspergillus niger	100
Aureobasidium pullulans	30
Chaetomium globosum	80
Cladosporium herbarum	200
Coniophora puteana	100
Paecilomyces variotii	200
Penicillium citrinum	100
Penicillium glaucum	100
Trichophyton pedis	100
Trichoderma viride	140

NOTICE: This product is for industrial use only by persons having technical skill in formulation coatings, adhesives, elastomers, paints and the like. LANXESS CORPORATION 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 LANXESS considers to be reliable. The performance of this product varies from application to application. LANXESS 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 LANXESS 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, not in strict accordance with the precautionary statements and storage recommendations on the labeling.

7/06