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Bayer Chemicals

BIOCHEK® 410

Industrial Preservative

PRODUCT BENEFITS

- Broad spectrum
- Excellent long-term preservation
- FDA approved
- Wide pH range (2.0 – 9.5)

GENERAL DESCRIPTION

BIOCHEK 410 is an industrial preservative which effectively inhibits the growth of bacteria, fungi and yeast in aqueous systems including paints, adhesives, latex emulsions, metalworking fluids, pigment slurries, joint cements, household products, and printing fluids. **BIOCHEK 410** is intended to protect products during storage. Chemically, **BIOCHEK 410** is a 19% dispersion of 1,2-dibromo-2,4-dicyanobutane and 6% 1,2-benzisothiazolin-3-one, shown in order in the chemical diagram below. For a general description of the typical chemical and physical properties, see the **BIOCHEK 410** Material Safety Data Sheet.

APPLICATION

The growth of microorganisms in aqueous systems during shipment, storage and handling can be detrimental to effectiveness. Such growth can affect such properties as odor, color viscosity and introduce microbial growth into production equipment and processes. Biochek 410 is effective in controlling such contamination and can improve the effectiveness and extent the life of materials treated if used according to the instructions given below.

TYPICAL LEVELS OF USE

Laboratory testing and customer use shows **BIOCHEK 410** is typically effective when applied at concentrations shown. The exact amount necessary for the preservation of any given formulation will depend on the components, storage time, temperature, etc., and can be determined through actual testing coordinated by your Bayer Chemicals representative. All concentrations are based on the total formulation weight.

	Product Use Level
Adhesives	500 – 8000 ppm
Latex Emulsions	500 – 8000 ppm
Metalworking Fluids	500 – 4000 ppm
Aqueous Paints	500 – 4000 ppm
Pigment Slurries	500 – 2000 ppm
Joint Cements	2000 – 8000 ppm
Household Products	500 – 4000 ppm

ACCEPTED

JAN 26 2005

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 39967-39

FDA STATUS AND APPROVALS

BIOCHEK 410 has FDA approval under 21 CFR 175.105, 176.170 and 176.180.
BIOCHEK 410 is approved by the German BGVV, Recommendation XXXVI.

DIRECTIONS FOR USE

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

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Adhesives

Biochek 410 is formulated to facilitate incorporate bv pumping into the makeup water. Biochek 410 can be incorporated by pouring if necessary. Where the adhesive is heated, **BIOCHEK 410** should be added during the cool-down cycle to minimize any evaporative loss. Adhesives for which **BIOCHEK 410** provides effective in-can preservation are starch, epoxy, polyester, polyvinyl acetate, styrene butadiene, methyl cellulose, acrylic, polyvinyl alcohol, hydroxyethyl cellulose, dextrin and casein. Such adhesives include, but are not limited to, those used in manufacturing process, construction projects, packaging materials

Effective protection is achieved between 500 – 8000 ppm. Optimum effective concentration can vary with properties of the material being preserved. Testing to determine the appropriate level for your product is highly recommended.

Aqueous paints

Biochek 410 is formulated to facilitate incorporate by pumping into the makeup water. Biochek 410 can be incorporated by pouring if necessary. Biochek 410 should be incorporated into the makeup water during the grind.

Biochek 410 is an effective in-can preservative for all type of aqueous paints and coatings when used at levels of 500 – 4000 ppm. The optimum effective concentration can vary with properties of the material being preserved. Testing to determine the appropriate level for your product is highly recommended.

Latex emulsions

Biochek 410 is formulated to facilitate incorporate by pumping into the makeup water. Biochek 410 can be incorporated by pouring if necessary. Pump or pour using moderate agitation immediately following cool-down of the emulsion, and prior to pumping the emulsion into storage tank facilities. Latex emulsions that are preserved by **BIOCHEK 410** include polyvinyl acetate, acrylic, vinyl acrylic and styrene butadiene. These emulsions are the raw materials used in the formulation of paints, adhesives, joint cements, pigments and household products.

Effective protection is achieved between 500 – 8000 ppm. Optimum effective concentration can vary with properties of the material being preserved. Testing to determine the appropriate level for your product is highly recommended.

Dispersed pigments

Biochek 410 is formulated to facilitate incorporate by pumping into the makeup water. Biochek 410 can be incorporated by pouring if necessary. Pump or pour using moderate agitation immediately following cool-down of the dispersed pigment and prior to pumping to the storage tank. Biochek 410 is an effective in-can preservative to protect the pigment during handling,

transportation and storage. Dispersed pigments are used to impart color to many products such as paints and coatings, adhesives and plastics.

Effective protection is achieved between 500 – 2000 ppm. Optimum effective concentration can vary with properties of the material being preserved. Testing to determine the appropriate level for your product is highly recommended.

Household products and waxes, polishes, and inks

Biochek 410 is formulated to facilitate incorporate by pumping into the makeup water. Biochek 410 can be incorporated by pouring if necessary. Incorporate by pumping or pouring with agitation into the makeup water blend. These products include, but are not limited to, dishwashing liquids, furniture and floor waxes and polishes, cleaners and treatment products and over-the counter inks sold to custom color decorative household projects.

Effective protection is achieved between 500 – 8000 ppm. Optimum effective concentration can vary with properties of the material being preserved. Testing to determine the appropriate level for your product is highly recommended.

Joint cements

Biochek 410 is formulated to facilitate incorporate by pumping into the makeup water. Biochek 410 can be incorporated by pouring if necessary. Incorporate by pumping or pouring with agitation into the makeup water blend. These products include mortar-like sealers that are used to construct walls.

Effective protection is achieved between 2000 – 8000 ppm. Optimum effective concentration can vary with properties of the material being preserved. Testing to determine the appropriate level for your product is highly recommended.

Metalworking fluids

Biochek 410 is formulated to facilitate incorporate by pumping, but can be poured. Pump or pour Biochek 410 into the final diluted fluid either prior to its addition to the system at a level that will provide adequate protection in the diluted system, or after the system has been filled. **BIOCHEK 410** should be thoroughly mixed into the system to assure efficacy. If **BIOCHEK 410** is added to the concentrate, testing should be conducted to assure compatibility.

Effective protection is achieved between 500 – 4000 ppm. Optimum effective concentration can vary with properties of the material being preserved. Testing to determine the appropriate level for your product is highly recommended.

Printing fluids

Biochek 410 is formulated to facilitate incorporate by pumping, but can be poured Add to fluid concentrates during, or at the end of, mixing prior to filling at concentrations from 30 - 5000 ppm by weight. These printing fluids may be further diluted with water by printers so that the final concentration of **BIOCHEK 410** is 10 – 2000 ppm by weight. These product include all type of printing fluid products such as, but not limited to printing, copier and computer inks

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. CORROSIVE. Causes irreversible eye damage. Harmful if inhaled. Harmful if swallowed or absorbed through skin. Avoid breathing vapor or spray mist. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Remove contaminated clothing and wash before reuse.

Handlers must wear: Long-sleeved shirt and long pants; socks and shoes; goggles or face shield and Chemical resistant gloves (such as rubber or any waterproof material); and either a respirator with an organic vapor (OV) cartridge, or a canister with any N, P, R or HE prefilter or a dust/mist filtering respirator (MSHA/NIOSH) approval number prefix TC-21 or a NIOSH approved respirator with any N, P, R or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Wash hands thoroughly before eating drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public 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 sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

EPA Reg. No. 39967-39
EPA Establishment #

BAYER CHEMICALS CORPORATION
100 Bayer Road
Pittsburgh, PA 15205

* Biochek is a registered trademark of Bayer Chemicals Corporation

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Bayer Chemicals

BIOCHEK® 410

AN INDUSTRIAL PRESERVATIVE TO INHIBIT THE GROWTH OF BACTERIA, FUNGI AND YEASTS IN AQUEOUS PAINTS, LATEX EMULSIONS, METAL WORKING FLUIDS, PIGMENT SLURRIES, JOINT CEMENTS, HOUSEHOLD PRODUCTS AND PRINTING FLUIDS

ACTIVE INGREDIENTS:

1,2-Dibromo-2, 4-dicyanobutane	19 %
1,2-Benzisothiazolin-3-one	6 %
INERT INGREDIENTS	75 %
Total	100%

KEEP OUT OF REACH OF CHILDREN

DANGER

FIRST AID

- IF IN EYES: Hold eyes 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. Call a poison control center or doctor for treatment advise.
- IF SWALLOWED: Call a poison control center or doctor immediately for treatment advise. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told by a poison control center or doctor.
- IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advise.
- IF INHALED: Move person to fresh air. If person is not breathing, call 911 or ambulances, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advise.
- NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

IN CASE OF EMERGENCY, CALL:
CHEMTREC 800-424-9300
INTERNATIONAL (703)-527-3887The Bayer Pittsburg Emergency Response Telephone Number is (412)923-1800

DIRECTIONS FOR USE

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

Do not apply in a way that will contact workers or other persons. The amount necessary for desired protection varies, depending on exposure conditions. For further application information refer to the Product Bulletin.

PESTICIDE STORAGE

Keep container closed when not in use. Do not contaminate water, food, or feeds by storage or disposal.

Ship and store Bichek 410 at temperatures between 0-42° C (32-108 ° F). Freezing the product may cause a temporary water separation, which can be corrected by mechanical agitation.

Store away from heat. At temperatures above 42° C (108° F), the active ingredients in the dispersion may separate out.

ATTENTION: If the temperature indicator button is white, the product can be used directly. If the indicator button is bright blue, matching the exposed example, sample the drum. If the product is a slightly viscous, white dispersion, the product may be used. If two phases are found or clear viscous, water is found, contact your product representative. Temperature changes may alter viscosity, but will not affect product handling or performance.

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 environmental control agency, or the hazardous waste representative at the nearest regional office for guidance.

CONTAINER DISPOSAL: Disposal of Drums: Do not reuse empty container. Triple rinse (or equivalent) Reseal container then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration or, if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

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