**Product Information:**

**Reputain® K50**

**Preservative**

A non-ionic preservative suitable for use in water-based paints and related products to prevent spoilage and growth of fungi and bacteria. It is particularly beneficial in formulations of water-based coatings, such as latex paints, and in products that are susceptible to spoilage due to humidity and temperature conditions.

**USABLE FOR**

- **Architectural Coatings**
- **Industrial Coatings**
- **Consumer Products**
- **Miscellaneous Applications**

**STORAGE & DISPOSAL:**

- Store in a dry, cool place.
- Disposal of container(s): Follow local regulations.
- Disposal of unused material: Dispose of according to local regulations.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION:**

- Avoid contact with eyes and skin.
- Keep out of reach of children.

**MANUFACTURED BY:**

Arch Chemical Company

9601 Northlake Drive, Suite 1100

Hagerstown, MD 21740

Emergency Contact Number: 1-800-695-4311

 EPA: 3753-31-1350

SPN 245701

[Arch Logo]

**ARCH**

ARCH CHEMICAL COMPANY

MADE IN THE USA
PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS AND DOMESTIC ANIMALS
Corrosive. Causes irreversible eye damage and skin burns. Harmful if inhaled or absorbed through the skin. May be fatal if swallowed. Do not get in eyes, on skin or on clothing. Avoid breathing vapors and mists. Do not swallow. Prolonged or frequently repeated skin contact may cause allergic skin reactions in certain individuals. May cause asthmatic signs and symptoms in some hyper-reactive individuals. Wear eye goggles, rubber gloves, and protective clothing when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, and using tobacco. Remove contaminated clothing and wash before reuse.

STORAGE AND DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. PESTICIDE STORAGE: Reputain K 50 solutions are corrosive to many commonly used materials of construction such as steel, galvanized iron, aluminum, tin and zinc. These solutions can be stored and handled in baked phenolic lined steel, stainless steel or reinforced epoxy equipment. This product freezes at approximately -20°C (-4°F). Therefore, unless the storage tank is inside or underground, heating and insulation may be required. If heating is needed, exposure to high temperatures should be avoided. For short storage (1 month) temperatures up to 100°F can be tolerated; however, the preferred maximum storage temperature is approximately 80°F. Keep away from fire and open flames. A stainless steel centrifugal pump is suggested for transfer service. 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 or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from the container into the application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. GENERAL: Consult Federal, State and local authorities for approved alternative procedures. RCRA Hazardous Waste Code D002.

CONDITIONS OF SALE
The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risk inherently associated with use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of the Seller. All such risks shall be assumed by the Buyer. The manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to above.

THE MANUFACTURER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL THE MANUFACTURER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

The manufacturer offers this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative.

REPUTAIN® is a registered trademark of Arch UK Biocides Ltd.
Reputain® K50
Preservative

COMMERCIAL MICROBICIDE

A microbiocide for controlling slime-forming and sulfate-reducing bacteria, fungi, yeast and algae. For use in sugar beet mills and process water systems; paper mills and associated process water systems; pigments and filler slurries for food and non-food contact paper and paperboard; non-food contact water based coatings for paper and paperboard; air washers and industrial scrubbing systems; recirculating cooling and process water systems; reverse osmosis membranes; heat transfer systems; service water and auxiliary systems; industrial wastewater systems including wastewater sludge and holding tanks; water based conveyor lubricants; aqueous metalworking fluids; oil field applications including drilling muds, workover, fracturing, completion and packer fluids; gas production, transmission and storage; preservation of food contact adhesives and mineral slurries used in paper making and preservation of concentrates.

Active Ingredient:
Glutaraldehyde.................. 50%
Inert Ingredients..................50%
Total.............................100%

KEEP OUT OF REACH OF CHILDREN
DANGER

FIRST AID:
If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 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. 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 to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person. 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 treatment advice. HOT LINE NUMBER Have the product container or label with you when calling a Poison Control Center or doctor, or going for treatment. You may also contact 1-800-654-6911 for emergency medical treatment information. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

MANUFACTURED FOR:

Arch Chemicals, Inc.

5660 New Northside Drive, Suite 1100
Atlanta, GA 30328

Emergency Contact Number: 1-800-654-6911

EPA Reg. No. 33753-31-1258
EPA EST NO. 66428-SC-001
NET WEIGHT 2800 LBS
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 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. Do not contaminate water when disposing of equipment washwaters. Instructions in Case of Spills or Leaks: Wear goggles, rubber gloves, and protective clothing. Absorb spills and leaks with inert material such as sand, clay or vermiculite. Shovel into a sealable container and dispose of in an authorized EPA disposal facility. In Case of Fire: Use water, carbon dioxide, dry chemical (e.g. Sodium bicarbonate) extinguishing media. Fire fighters should be equipped with self-contained breathing apparatus and turnout gear. In Case of Chemical Emergency: Call CHEMTREC 24 hours a day or night for assistance and information concerning spilled material, fire, exposure and other chemical accidents 800-424-9300.

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

GENERAL USE DIRECTIONS
Add Reputain K50 at a point of uniform mixing where the treated water will be circulated or mixed throughout the system. Badly fouled systems should be cleaned before treatment begins. Reputain K50 can be applied either intermittently (slug dose) or by continuous feed where stated. When appropriate, feed points should be below the water line to minimize vapor.

AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS, RECIRCULATING COOLING AND PROCESS WATER SYSTEMS: Use only in industrial air washer systems, which have mist-eliminating components. Badly fouled systems can be shock treated by using the highest recommended rate of Reputain K50. Under these conditions, blowdown should be discontinued for up to 24 hours. Apply by intermittent or continuous feed methods. Initial Dose: When the system is noticeably fouled, add 11.5-23.0 fl oz. (100-200 ppm) of Reputain K50 per 1,000 gal. of water in the system. Repeat until control is achieved. Subsequent Dose: When microbial control is evident, add 4.6-11.5 fl oz. (40-100 ppm) of Reputain K50 per 1,000 gal. of water in the system, per day, as needed to maintain control.

REVERSE OSMOSIS MEMBRANES: Use only where approved for compatibility by the membrane manufacturer. Immersible membrane in a tank containing 2000 to 20,000 ppm Reputain K50 for 6 to 24 hours. Reputain K50 can also be added to in-line recirculating systems of installed out of service osmosis equipment. Add 200 to 2000 ppm Reputain K50 to the tank on the circulating system and maintain this concentration by periodic addition to counteract any system leakage. Flush the system through with clean water before returning to service.

HEAT TRANSFER SYSTEMS: For use in Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers and Retorts, Pasteurizers and Warms, and Once-Through Cooling Water Systems. Initial Dose: When the system is noticeably fouled, add 11.5-23.0 fl oz. (100-200 ppm) of Reputain K50 per 1,000 gal. of water in the system. Subsequent Dose: For maintenance, use a continuous feed of 4.6-11.5 fl oz. (40-100 ppm) of Reputain K50 per 1,000 gal. of water in the system per day. SERVICE WATER AND AUXILIARY SYSTEMS: Use in systems such as fire water reserves, spray paint booths, and emergency cooling water systems. Dose initially at 11.5-23.0 fl oz. (100-200 ppm) of Reputain K50 per 1,000 gal. of water in the system. Reapply as necessary to maintain this concentration.

INDUSTRIAL WASTEWATER SYSTEMS: For use in aerobic and anaerobic, belt-pressed, digested and undigested sludges, and holding tanks. Add 0.5-2.3 gal. (450 to 2250 ppm) of Reputain K50 per 1,000 gallons of wastewater or sludge. SUGAR BEET MILLS AND PROCESS WATER SYSTEMS: Apply by intermittent or continuous feed methods. Repeat intermittent dose until control is achieved. Not to exceed 0.5 gal per 1000 tons of beets. Initial Dose: When the system is noticeably contaminated, add 5.5 to 13.8 fl oz. (200 to 500 ppm) of Reputain K50 per ton of sliced beets. Subsequent Dose: When microbial control is evident, add 3.8 to 8.2 fl oz (36 to 300 ppm) of Reputain K50 per ton of sliced beets to the system as necessary to maintain control. Not for use in the State of California. PAPER MILLS AND ASSOCIATED PROCESS WATER SYSTEMS: Apply by intermittent or continuous feed methods. Initial Dose: When the system is noticeably contaminated, add 5.5-13.8 fl oz. (200-500 ppm) of Reputain K50 per ton of pulp or paper (dry basis). Repeat until control is achieved. Subsequent Dose: When microbial control is evident, add 0.5-2.0 lb per ton to pulp or paper (dry basis) as necessary to maintain control.

PIGMENTS AND FILLER SLURRIES FOR FOOD AND NON-FOOD CONTACT PAPER AND PAPERBOARD: To inhibit the growth of spoilage microorganisms during manufacture, storage and distribution of pigments and filler slurries such as kaolin, calcium carbonate and titanium dioxide. Add Reputain K50 to produce a concentration of 100-600 ppm by weight of the formulation slurry (1-6 lbs per 10,000 lbs of slurry). Apply once during manufacture.

WATER BASED COATINGS FOR NON-FOOD CONTACT PAPER AND PAPERBOARD: To inhibit the growth of spoilage microorganisms during manufacture, storage, and distribution of water-based coatings for use on non-food-contact paper and paperboard. Add Reputain K50 at 100-600 ppm by weight of the formulation slurry (1.0-6.0 lbs of product per 10,000 lbs of slurry). OIL WELL WATER FLOODS: Initial dose: Add Reputain K50 at 100-5,000 ppm of the water flood solution (0.9-4.5 gal Reputain K50 per 1,000 gal. floodwater). Add Reputain K50 intermittently until control is achieved. Subsequent dose: Add 50-250 ppm of Reputain K50 (0.6 to 2.5 gal. of Reputain K50 to each 1,000 gal.) each week to maintain bacterial control. DRILLING MUDS, WORKOVER, FRACTURING AND COMPLETIONS FLUIDS: Add 100 to 1,000 ppm Reputain K50 (0.38 to 3.8 gal Reputain K50 per 100 barrels or 4,200 gal.), depending on the severity of the bacterial contamination. Additional Reputain K50 to maintain the proper concentration as the total volume of the system increases with the well depth. For workover fluids, circulate the system until the fluid returns clear. Shut the system down and idle for several hours. Remove the workover fluid. This well should be ready for productive use. PACKER FLUIDS: Add Reputain K50 at 50-600 ppm (0.21 to 2.5 gal. per 100 barrels of fluid) to a freshly prepared fluid, depending on the severity of contamination. Apply once before sealing the treated packer fluid in the well below the casing and production tube.

GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS: Add Reputain K50 to inhibit microbial growth in natural gas production or transmission pipelines and systems supplying liquid and natural gas during commercial production. Inhibit Reputain K50 directly into the transmission pipeline at the earliest available entry point. Add Reputain K50 at a dose rate of 50 to 600 ppm of the water in the system. Injections to the system should be made on a weekly basis, or as needed to maintain control. GAS STORAGE WELLS AND SYSTEMS: Treat individual injection wells with Reputain K50 at 500 to 5,000 ppm and maintain this concentration in the water present in the formation. Treatment of the well should take place during the summer before gas is injected. Dose individually to maintain a concentration of 200 to 2,000 ppm Reputain K50. Treatment should be repeated yearly, or as needed to maintain control.

HYDROTESTING: For use in pipelines, valve systems boilers and vessels. Water used to hydrotest pipelines or vessels should contain 100 to 4,000 ppm (0.1 to 4 gal. per 1,000 gal. water) of Reputain K50, depending on water quality, pH, environmental conditions and the length of time the equipment will remain idle. At neutral pH and below, treated water can remain in the system for more than 1 year. PIPELINE PIGGING AND SCRAPING OPERATION: Add Reputain K50 to the water immediately following the scraper. This water volume can be kept to a minimum and contained between the scraper and trailing pig. Add Reputain K50 at 1,000 to 10,000 ppm (0.1 to 1.0 gal. Reputain K50 per 100 gal. water), depending on the length of the pipeline and the severity of biofouling. WATER BASED CONVEYOR LUBRICANTS: For use in breweries, juice, dairy, beverage, and food processing systems. Thoroughly clean tracks and conveyors to remove all gross contamination. Rinse well. Use a commercially available automatic feed system to provide 1.4 to 8.4 fluid ounces (100 to 600 ppm) of Reputain K50 per 100 gal. of dilute lubricant. Avoid contamination of food in application of this product. Not for use in the State of California. GENERAL PRESERVATION: Non-food contact: For use by manufacturers for in-can preservation of aqueous industrial, institutional and consumer non-food contact products that require the control of bacteria and fungi: For example, mineral slurries used in paints and plastics, concrete admixtures, pigments, latices, printing inks, paint, laundry detergents, and cleaning products. Add Reputain K50 to the product formulation at a rate of 2.8 to 28 fluid ounces (200 to 2,000 ppm) per 100 gal. of the water content of the product. Mix uniformly. Food contact: For use by manufacturers that require the control of bacteria or fungi in the preservation of food-contact adhesives and mineral slurries used in papermaking. Not for use in the State of California. PRESERVATION OF CONCENTRATES: Use in concentrates where effective preservation is needed after dilution. Add Reputain K50 at a rate such that the diluted end-use product will contain 200 to 2,000 ppm (0.02% to 0.2%) of product. AQUEOUS METAL WORKING FLUIDS: Reputain K50 should be added to a metalworking fluid system at a point of uniform mixing such as the fluid collection tank. Additions may be added intermittently at intervals of one week or less. Initial dose: When the system is noticeably fouled apply 0.2 to 0.6 gal. of Reputain K50 per 1,000 gal. of metalworking fluid to the system. Repeat until control is achieved. Subsequent dose: When microbial control is evident, add 0.08 to 0.4 gal. of Reputain K50 per 1,000 gal. of metalworking fluid to the system weekly, or as needed to maintain control. Badly fouled systems should be cleaned before treatment begins. Not for use in the State of California.

EPA Stamped Label 10/01/09 84264-820_07152102 Reputain K50_10042012
CORROSIVE LIQUID, TOXIC, N.O.S., (CONTAINS GLUTARALDEHYDE)