

88714-1

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1/8



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

November 19, 2015

Robert Rosenwasser
Agent for Water Science Technologies, LLC
Water Science Technologies, LLC
5520 Parkview Circle
Bessemer, AL 35022

Subject: Label Amendment – Adding label language Equipment and Fracturing Fluids use sites; Oilfield and Petrochemical system; Enhanced oil recovery systems; Equipment cleaning and fracturing fluids as terms in header text. Plus adding Emergency phone number in the First Aid Section; Updating: Precautionary Statements; amending text in Recirculating Cooling Water Directions for Use and Updating the Container Handling in Storage and Disposal section.
Product Name: K-BAC® 1005
EPA Registration Number: 88714-1
Application Date: August 19, 2015
Decision Number: 508343

Dear Mr. Rosenwasser:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the

Page 2 of 2
EPA Reg. No. 88714-1
Decision No. 508343

website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Lorena Rivas by phone at 703-305-5027, or via email at rivas.lorena@epa.gov.

Sincerely,



Jacqueline Hardy, Product Manager (34)
Regulatory Management Branch II
Antimicrobials Division (7510P)

Enclosure: Approved Label

{All text in brackets [xxx] is optional and may or may not be intended on a final label.}
{All text in braces {xxx} is administrative and will not appear on a final label.}

ACCEPTED
11/19/2015
Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 88714-1

K-BAC® 1005

DBNPA

A MICROBIOCIDAL BACTERICIDE, FUNGICIDE, ALGAECIDE AND SLIMICIDE, USED IN TREATING [RECIRCULATING COOLING WATER IN INDUSTRIAL COOLING SYSTEMS,] [PAPER AND PAPER MILL SYSTEMS,] [NON-POTABLE REVERSE OSMOSIS SYSTEMS,] [METALWORKING FLUIDS CONTAINING WATER,] [BREWERY PASTEURIZER WATER,] [ENHANCED OIL RECOVERY SYSTEMS,] [AIR-WASHER SYSTEMS,] [INDUSTRIAL PRESERVATION APPLICATIONS,] [PUBLICLY-OWNED TREATMENT WORKS,] [FRACTURING FLUIDS,*] [AND] [EQUIPMENT CLEANING*].

**This product is not registered for this use in the State of California*

| | |
|--|---------|
| ACTIVE INGREDIENT: | |
| 2,2-Dibromo-3-nitrilopropionamide..... | 5.49% |
| OTHER INGREDIENTS:..... | 94.51% |
| TOTAL:..... | 100.00% |

KEEP OUT OF REACH OF CHILDREN DANGER

| FIRST AID | |
|--|---|
| If in eyes | <ul style="list-style-type: none"> • 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 inhaled | <ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice. |
| If on skin or clothing | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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 the poison control center or doctor. • Do not give anything by mouth to an unconscious person. |
| <p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p> <p>YOU MAY ALSO CONTACT 1-800-255-3924 FOR EMERGENCY MEDICAL TREATMENT INFORMATION.</p> | |
| <p>NOTE TO PHYSICIAN</p> <p>Probable mucosal damage may contraindicate the use of gastric lavage.</p> | |

See [back] [side] panels for additional precautionary statements and [first aid.]

4/8

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Corrosive. Causes irreversible eye damage. Eye contact may cause loss of vision. Harmful if swallowed, inhaled or absorbed through the skin. Wash thoroughly after handling. Do not smoke, drink, or eat when handling. Keep container tightly closed when not in use. Do not ship with food, feeds, drugs, or clothing. To maintain product quality, store in the dark at temperatures below 104°F (40°C).

Avoid breathing vapors or spray mist. Do not get in eyes or on clothing. Avoid contact with skin. In case of contact immediately rinse skin with plenty of water. Get medical attention if irritation persists. Wear protective eyewear (goggles, face shield or safety glasses). Use with adequate ventilation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before re-use.

PERSONAL PROTECTION EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Coveralls worn over long sleeved shirt and long pants
- Chemical resistant footwear plus socks
- Goggles with side-shields or face shield
- Chemical-resistant gloves (such as barrier laminate, butyl rubber, neoprene rubber, nitrile rubber, polyvinyl chloride, PVC and viton)

For cleaning equipment: Wear a chemical-resistant apron

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users must wash hands before drinking, chewing gum, using tobacco, or using the toilet. Users must remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users must 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 aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of waste. 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 local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

CHEMICAL OR PHYSICAL HAZARDS: Reaction with strong reducing agents may be explosive. Avoid misting.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.

RECIRCULATING COOLING WATER IN INDUSTRIAL COOLING SYSTEMS

Add this product separately to the system. Do not mix it with other additives, so as to avoid decomposition of this product due to the high pH of many additive formulations. Add this product to the basin (or any other point of uniform mixing). Additions must be made via a metering pump; it may be continuous or intermittent, depending on the severity of the contamination when treatment is begun, and the in-system retention time. Optimum performance with this product is achieved by continuous or intermittent treatment. If "shock" treatment is used, the blowdown must be discontinued for 24-48 hours.

-FOR CONTROL OF BACTERIA: Add 0.00380-0.0380 gal. of this product/1,000 gal. of water in the system depending on the severity of contamination.

INTERMITTENT OR SLUG METHOD

5/8

Initial Dose: When the system is noticeably fouled, add 0.0192-0.0380 gal. of this product /1,000 gal. of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.0096-0.0380 gal. of this product/1,000 gal. of water in the system every 4 days, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD

Initial Dose: When the system is noticeably fouled, add 0.0192-0.0380 gal. of this product/1,000 gal. of water in the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.00380-0.0192 gal. of this product/1,000 gal. of water in the system lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

-FOR CONTROL OF FUNGI AND ALGAE: Add 0.116-0.380 gal. of this product/1,000 gal. of water in the system, depending on the severity of contamination.

INTERMITTENT OR SLUG METHOD

Initial Dose: When the system is noticeably fouled, add 0.192-0.380 gal. of this product/1,000 gal. of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.116-0.380 gal. of this product/1,000 gal. of water in the system daily, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD

Initial Dose: When the system is noticeably fouled, add 0.192-0.380 gal. of this product/1,000 gal. of water in the system.

Subsequent Dose: Maintain this treatment level by pumping a continuous feed of 0.116-0.380 gal. of this product/1,000 gal. of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

PULP AND PAPER MILL SYSTEMS

Add this product separately to the system. Do not mix it with other additives, so as to avoid decomposition of this product due to the high pH of many additive formulations. For the control of slime-forming bacterial, fungal, and yeast growth in pulp, paper and paperboard mills add this product at levels of 0.60-2.00 lbs./ton (dry) of pulp or paper produced. Additions must be continuous or intermittent, depending upon the type of system and the severity of contamination. Additions are made via a metering pump at a point in the system that will ensure uniform distribution of this product in the mass of fiber and water, such as the beaters, Jordan inlet or discharge, broke chests, furnish chests, save-alls and white-water tanks. **Heavily fouled systems** must first be boiled out, then treated with 0.60-1.40 lbs. of this product/ton (dry) of paper or pulp as necessary for control. **Moderately fouled systems** must be treated continuously with 1.40-2.00 lbs. of this product/ton (dry) of paper or pulp until the slime accumulation is controlled. Subsequent rates must then be reduced to 0.60-1.40 lbs. of this product/ton (dry) of paper on a continuous or intermittent basis as needed for control. Dislodged slime may cause breaks in the paper and a clean-up of the paper machine may be advisable. **Slightly fouled systems** must be treated continuously with 0.60-1.40 lbs. of this product/ton (dry) of paper or pulp, until the slime is controlled, then added on an intermittent basis to maintain control.

NON-POTABLE REVERSE OSMOSIS SYSTEMS

For controlling bacterial, fungal, and algal slimes in non-potable reverse osmosis systems and peripheral equipment, add this product to the system inlet water or before any other contamination area ahead of the reverse osmosis unit. This product must be added with a metering pump on an intermittent basis depending on the severity of contamination and the guidelines specified by the membrane manufacturer for this product. Add this product at the rate of 0.04-4.0 lbs. (5-480 ppm) per 1,000 gal. of feedwater. During use of this product both permeate and reject waters must be directed to the drain. Once treatment is completed, rinsing with feedwater must continue until conductivity values in the permeate are at or below values before treatment with this product. Badly fouled systems must be cleaned before treatment is begun.

-FOR CONTROL OF BACTERIA

Initial Dose: When the system is noticeably fouled, add this product at the rate of 0.2-0.4 lbs. (24-48 ppm) per 1,000 gal. of feedwater. Minimum treatment intervals must be 15 minutes. Repeat until control is achieved or as specified by guidelines recommended by the membrane manufacturer.

Subsequent Dose: When microbial control is achieved, add this product at the rate of 0.1-0.4 lbs. (12-48 ppm) per 1,000 gal. of feedwater as needed to maintain control or as specified by guidelines recommended by the membrane manufacturer.

-FOR CONTROL OF FUNGI AND ALGAE

Initial Dose: When the system is noticeably fouled, add this product at the rate of 2.0-4.0 lbs. (240-480 ppm) per 1,000 gal. of feedwater. Minimum treatment intervals must be 15 minutes. Repeat until control is achieved or as specified by guidelines recommended by the membrane manufacturer.

Subsequent Dose: When microbial control is achieved, add this product at the rate of 1.2-4.0 lbs. (144-480 ppm) per 1,000 gal. of feedwater as needed to maintain control or as specified by guidelines recommended by the membrane manufacturer.

METAL WORKING FLUIDS CONTAINING WATER

This product is effective in metalworking fluid concentrates which have been diluted in water at ratios of 1:25 to 1:1.

For controlling (or inhibiting) the growth of bacteria, fungi and yeasts that may deteriorate metalworking fluids containing water, add this product to the fluid in the collection tank. Additions must be made with a metering pump.

Initial or Slug Dose: When the system is noticeably fouled, add this product at the rate of 1.1 gal. (2.65 lbs.) per 1,000 gal. of metalworking fluid in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add this product at the rate of 0.4-0.8 gal. (1.06-2.12 lbs.) per 1,000 gal. of metalworking fluid per day, or as needed to maintain control. Additions of this product must be made continuously or intermittently. Slug the system as required.

BREWERY PASTEURIZER WATER

For controlling (or inhibiting) the growth of bacteria, fungi and yeasts in brewery pasteurizing water systems, add this product at a point in the system to insure uniform mixing.

Initial or Slug Dose: When the system is noticeably fouled, add this product at the rate of 1.1 gal. (2.65 lbs.) per 1,000 gal. of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add this product at the rate of 0.4-0.8 gal. (1.06-2.12 lbs.) per 1,000 gal. of water per day, or as needed to maintain control. Additions of this product must be made continuously or intermittently. Slug the system as required. Badly fouled systems must be cleaned before treatment is begun.

ENHANCED OIL RECOVERY SYSTEMS

NOTE: Add this product separately to the system. Do not mix it with other additives, so as to avoid decomposition of this product due to the high pH of many additive formulations. Additions of this product may be made at the free water knockouts, before or after the injection pumps and injection well headers. For controlling slime-forming bacteria, sulfide-producing bacteria, yeasts, and fungi in oil field water, polymer or micellar floods, water-disposal systems, or other oil field water systems, add 4-284 ppm this product (0.4-25.6 gal. of this product per 2,400 barrels of water) depending on the severity of contamination. Additions must be made with a metering pump either continuously or intermittently.

CONTINUOUS FEED METHOD: When the system is noticeably fouled, add 36-284 ppm this product (3.2-25.6 gal. of this product per 2,400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 4-53 ppm this product (0.4-4.8 gal. of this product per 2,400 barrels of water) continuously or as needed to maintain control.

INTERMITTENT OR SLUG METHOD: When the system is noticeably fouled or to maintain control of the system, add 36-284 ppm this product (3.2-25.6 gal. of this product per 2,400 barrels of water) intermittently for 4-8 hours per day and from 1-4 times per week, or as needed depending on the severity of contamination. For control of bacteria, yeast, and fungi in aqueous solutions of biopolymer used in flooding operations, add 53-284 ppm this product (4.8-25.6 gal. of this product per 2,400 barrels of water). Additions of this product must be made with a metering pump immediately after preparation of the aqueous biopolymer solution to reduce loss of viscosity.

AIR-WASHER SYSTEMS

For use only in industrial air-washer systems that maintain effective mist eliminating components. Add 0.006-0.380 gal. this product/1,000 gal. of water in the system, depending on the severity of contamination, to control slime-forming bacteria and fungi in industrial air washing systems.

INTERMITTENT OR SLUG METHOD

Initial Dose: When the system is noticeably fouled, add 0.012-0.380 gal. of this product/1,000 gal. of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.006-0.188 gal. of this product/1,000 gal. of water in the system every 2 days, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD

Initial Dose: When the system is noticeably fouled, add 0.012-0.380 gal. this product/1,000 gal. of water in the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.006-0.188 gal. of this product/ 1,000 gal. of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

INDUSTRIAL PRESERVATION APPLICATIONS

This product may be used to reduce microbiological contamination in raw materials and/or products such as: aqueous paints and coatings, polymers, slurries, adhesives, latex and resin emulsions, sizing, caulk, process water, along with specialty industrial products including: inks, polishes, waxes, detergents, and cleansers.

7/8

TO REDUCE MICROBIOLOGICAL CONTAMINATION: Add this product to the material or product at a concentration of 100-8,000 ppm by weight. This concentration is equivalent to 11.2-896.0 fluid ounces this product per 1,000 gal. or 85.6-6,848.0 mL this product per 1,000 L. The required concentration will depend on the material being treated and the level of contamination present.

PUBLICLY-OWNED TREATMENT WORKS TO CONTROL COLIFORM AND OTHER BACTERIA

Add this product at a concentration of 4.0-40.0 ppm by weight of water being treated, depending on the severity and contamination in the system. Additions must be CONTINUOUS and must be made with a metering pump at a point in the system where mixing will be rapid and thorough. Add this product to the system in a location where contact time will be 30 minutes or greater before reaching the outfall.

TO USE AS A CO-TREATMENT WITH CHLORINE: Add 1.6-6.0 ppm of this product by weight of water treated. Chlorination must result in a minimum detectable residual (i.e., greater than zero but less than the NPDES permit level). Additions must be CONTINUOUS and made at a point just after initial chlorine mixing. Rapid mixing is necessary for maximum effectiveness. This product must be added at a location where a contact time of 10 minutes or longer will be provided before reaching the outfall.

OILFIELD AND PETROCHEMICAL SYSTEMS*

**This product is not registered for this use in the State of California*

This product may be used either in slug treatment or in continuous application. Dosages may vary from as much as 730 ppm of this product in slug application to 36-180 ppm of this product in continuous treatment (1/4 pint of this product per 1,000 gal. of water equals approximately 30 ppm). A typical slug treatment is to add 3.6 pints of this product per 1,000 gal. at intervals as needed to prevent growth of microbial slime. Badly fouled systems may be slug treated to establish control, followed by continuous treatment to maintain control.

FRACTURING FLUIDS*

**This product is not registered for this use in the State of California*

This product reduces bacterial contamination and degradation of fracturing fluids and gels used in oil and gas well stimulations. This product must be added to the water storage tanks before gelling and circulated to ensure mixing. If applicable, this product must be added at the well head for "on-the-fly" fracturing jobs.

Frequency and Dose: This product must be added at a rate of 328-983 ppm depending on water quality. Retreat after 48 hours if the frac job is delayed.

EQUIPMENT CLEANING*

**This product is not registered for this use in the State of California*

This product kills microorganisms present in solution or growing on the surfaces of process equipment such as reaction vessels, storage tanks and containers, piping, and hoses. For standard cleaning of equipment, add 182-910 ppm of this product in an aqueous solution to process piping and equipment. Heavily fouled solutions or equipment may be treated with up to 7,280 ppm of this product. After treating process equipment with this product, allow the solution to be in contact with surfaces for up to four hours.

If bleach is being used for cleaning purposes at 50-250 ppm available chlorine, this product must be used as part of a dual treatment program at 182-364 ppm by weight, in combination with sodium hypochlorite. Treat process equipment with chlorine first. Follow that treatment with this product and do not combine concentrated sodium hypochlorite solution with this product.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a dark, cool, dry, well-ventilated area, not above 104°F (40°C), in well-closed original containers, away from energy sources, combustible organic materials, oxidizers and moisture.

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:

[FOR CONTAINERS LESS THAN OR EQUAL TO 5 GAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store

rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.]

[FOR CONTAINERS GREATER THAN 5 GAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling, if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.]

SPILLS

When handling or dealing with spills, use goggles with side-shields or face shield; wear protective clothing, including chemical-resistant gloves and boots; use a respirator if misting occurs. Cover wet spills with 10% sodium bicarbonate solution, water and then an inert absorbent before sweeping up and disposing of as described for pesticide disposal. If container contents are contaminated or decomposing, isolate unsealed container in the open or in a well-ventilated area: flood with 10% sodium bicarbonate solution and large volumes of water if necessary.

[WARRANTY: Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with label directions under normal conditions of use, but to the extent consistent with applicable law, neither this warranty nor any other warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use 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.]

MANUFACTURED FOR:

WATER SCIENCE TECHNOLOGIES, LLC
5520 PARKWOOD CIRCLE
BESSEMER, AL 35022
866-284-9244

EPA REG. NO. 88714-1

EPA EST. NO. _____

NET CONTENTS: _____

BATCH / LOT #: _____

Transportation Emergency (Spill) Tel: 800-255-3924 CHEMTEL