

**PENNCHEM**

# BK<sup>®</sup> POWDER

## GENERAL USE DIRECTIONS

**FOOD AND DAIRY ESTABLISHMENTS—FLOW METHOD**—Clean and before use flow through all equipment 100 PPM. At bottle filler, solution should test not less than 50 PPM.  
**SPRAY METHOD**—Clean and before use apply 200 PPM by spray to vats, tanks, and coolers. Allow 2 minutes exposure time on all equipment.

**C-I-P LINES**—Clean. Before use circulate 100 PPM for 5 min. At end, solution should test not less than 50 PPM.

**UTENSILS**—Pails, Cans, Trays, Strainers, Small Parts, Milking Machines—Clean and before each use rinse with 200 PPM. Bulk Tanks—Clean and before use sanitize with 100 PPM. Allow 2 minutes exposure time on all equipment.

**PIPE LINE MILKERS—FLUSH METHOD**—Clean and before use draw through test cup units 100 PPM. **CIRCULATION METHOD**—Clean and before use circulate 100 PPM for 5 minutes. Concentration should not fall below 50 PPM at any time.

**FOOD SERVICE—INSTITUTIONAL** Hotels, motels, restaurants and similar industrial food preparation service areas.

1—Scrape and prewash utensils and glasses whenever possible.

2—Wash with a Pennchem cleaner of your choice.

3—Rinse with clean water.

4—Sanitize in a BK solution containing 1 teaspoon to 4 gallons of water (100 PPM available chlorine—in the absence of a test kit to measure available chlorine to determine if the solution has fallen below 50 PPM during use, starting concentration of 200 PPM should be used). Immerse all utensils for at least two minutes or for contact time specified by governing sanitary code.

5—Place sanitized utensils on a rack or drainboard to dry.

**GENERAL DISINFECTION OF NON-FOOD CONTACT SURFACES.**

After cleaning, disinfect floors, walls, woodwork and other similar non-food contact surfaces with a 600 PPM solution. Apply by spray method, allowing 2 minutes exposure.

4-1002 02

EPA REG. NO. 335-20

## CHLORINATED Sanitizer Bactericide Deodorant

FOR INDUSTRIAL USE ONLY

80 LB. NET WT.

PENNCHEM DEPARTMENT • PENNWALT CORPORATION • PHILADEL

**PENNCHEM**

~~4-10-1978~~  
UNDER THE FEDERAL INSECTICIDE  
FUNGICIDE AND RODENTICIDE ACT  
FOR ECONOMIC PEST CONTROL REGISTERED  
ED UNDER NO. 335-20 SUBJECT  
TO ATTACHED COMMENTS.

# POWDER

## CHLORINATED Sanitizer Bactericide Deodorant

FOR INDUSTRIAL USE ONLY

80 LB. NET WT.

PPM AVAILABLE CHLORINE (parts per million)	VOLUME OF SANITIZING SOLUTION		
	5 gallons	10 gallons	100 gallons
100	0.13 ounce	0.26 ounce	2.60 ounces
200	0.26 ounce	0.52 ounce	5.20 ounces
600	0.78 ounce	1.56 ounces	15.60 ounces

ACTIVE INGREDIENT: Calcium Hypochlorite ..... 50%  
INERT INGREDIENTS ..... 50%

**WARNING:** KEEP OUT OF REACH OF CHILDREN. HARMFUL IF SWALLOWED. STRONG OXIDANT. MAY PRODUCE CHEMICAL BURNS. Do not get on skin or in eyes.

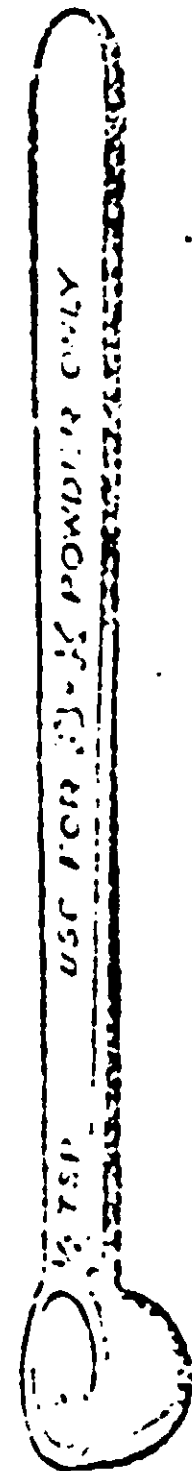
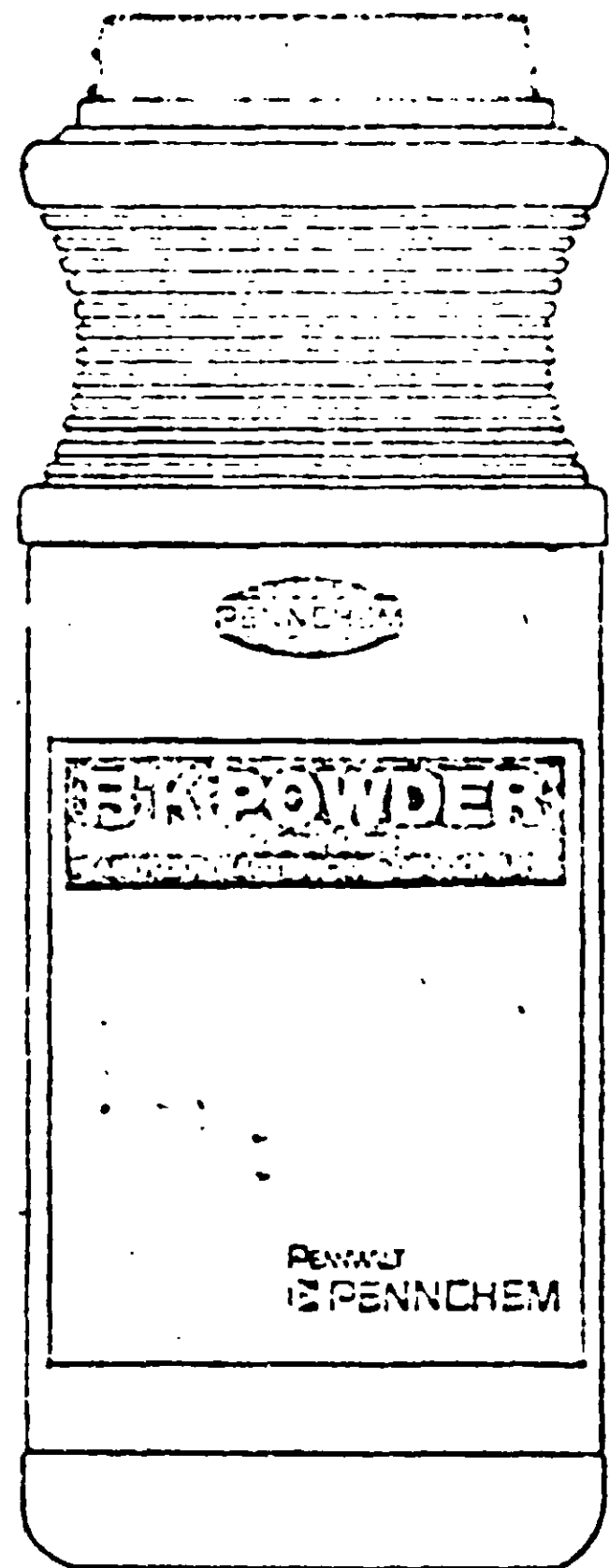
**FIRST AID:** In case of contact with skin or eyes, flush with plenty of water. If skin irritation persists, get medical attention. For eyes get prompt medical attention.

**DIRECTIONS FOR HANDLING AND STORAGE:** Contamination may result in fire. Do not mix with cleansers, sanitizers, acids or other materials. Measure only with a clean, dry measuring device. Rinse empty container thoroughly with water before discarding. KEEP IN COOL, DRY PLACE. REPLACE LID AFTER USING.

EPA EST NO 335-PA-1

Made and Printed in U.S.A.

PENN WALT CORPORATION • PHILADELPHIA PENNSYLVANIA 19102



**FREE**  
Plastic  
Measuring Spoon  
inside each  
container

How to use

**BK POWDER**

SANITIZER/BACTERICIDE/DEODORANT/DISINFECTANT

**PENNCHEM**

gets the job done fast.

With better people, products and service.

PENNCHEM DEPARTMENT  
PENWALT CORPORATION  
PHILADELPHIA, PA. 19102

**PENWALT**  
**PENNCHEM**

PENWALT BUILDING THREE PARKWAY  
PHILADELPHIA, PA. 19102 (215) 567-7271

FD-2365D

255M 774

Printed in U.S.A.

① *reliable*

\* **MACHINE-WASHING BOTTLES**—Bottles should be subjected to final rinse of 50 p.p.m. chlorine solution by injection of concentrated B-K Solution into water line supplying final rinse.

\* **TREATING BUTTER WASH WATER**—Before washing butter, add 1 level teaspoon of B-K Powder to each 50 gallons of wash water and stir well.

\* **SANITIZING CLARIFIERS OR SEPARATORS**—Just before use, sanitize with 100 p.p.m. B-K Solution, using flow method in conjunction with other equipment where possible.

\* **SANITIZING CHEESE-MAKING EQUIPMENT**—Sanitize just before beginning cheese-making operation. Make up a quantity of 100 p.p.m. B-K Solution in the receiving tank. After rinsing the surface of the tank with this solution, run it through lines, strainers, and filters into a cheese vat containing cleaned small parts. Rinse all small parts and vat surface. This solution may be pumped to other vats and the procedure repeated. Test at various points to insure proper chlorine strength.

Use the same solution to rinse presses, whey tanks, separators and filters. After using this method once or twice, you will know how much solution to prepare initially in the receiving tanks for all sanitation operations. Following sanitation of equipment, wash tables, then spray them with 500 p.p.m. B-K Solution.

\* **BACTERIOPHAGE CONTROL**—Bacteriophage may be effectively controlled by spraying the entire plant with 5000 p.p.m. B-K Solution. A fine mist of this solution should be distributed throughout all of the processing rooms so it may penetrate all openings and crevices in floors, walls, ceilings, and equipment. If bacteriophage are not destroyed or controlled by the above treatment, it may be necessary to increase the concentration of the B-K Solution.

\* **TREATING CHURNS TO KILL BACTERIA, MOLD, OFF-FLAVOR AND ODOR CAUSES**—Just before churning operation, run 50 gallons of water in the churn and add 12½ level teaspoons of B-K Powder. Run churn 5 minutes and drain. Do not rinse the churn after the B-K rinse because it may be recontaminated by the rinse water. If you have no test kit or if your creamery does not undergo inspections, use 25 level teaspoons of B-K Powder instead of 12½.

\* **SANITIZING ICE CREAM FREEZERS**—Clean freezer thoroughly following recommended procedure. Just before use, rinse all parts thoroughly with 100 p.p.m. B-K Solution.

\* **REMOVING MOLD IN CRITICAL AREAS**—Scrub plant and storeroom floors, walls, ceilings, shelves and woodwork with a warm detergent solution. Follow scrubbing with 1000 p.p.m. B-K Solution to destroy infect and remove mold spores. Stainless and other food equipment not mentioned elsewhere in this folder should receive the same treatment. Daily treatment will prevent recontamination.

\* **SANITIZING C.I.P. MILK LINES**—After clearing in the usual manner and just before use, circulate 100 p.p.m. B-K Solution—enough to fill lines completely—through the entire system for 5 minutes. At outlet, solution should not test less than 50 p.p.m.

\* **SANITIZING TANK AND TANK TRUCK INTERIORS**—Interiors of metal or glass lined tanks should be washed thoroughly, rinsed with clear water, then sprayed with 200 p.p.m. B-K Solution.

**DISINFECTING INTERIORS OF REFRIGERATOR CARS AND TRUCKS**—Wash all surfaces with warm detergent solution then spray heavily with 1000 p.p.m. B-K Solution.

**Sanitization of Syrup Room Bottling Equipment**

**SANITIZING SYRUP ROOM EQUIPMENT**—Clean mixers, filters, storage tanks, pumps, lines and fillers thoroughly with warm water. Before next use, treat as follows:

- (a) If syrup tanks are 10 gallons or less, fill entire system with 200 p.p.m. B-K Solution prepared in syrup mixer. Pump the solution through the syrup filter into storage tanks, then through lines to the bottling equipment and drain off.
- (b) If syrup tanks are larger than 10 gallons, spray 200 p.p.m. B-K Solution over tank interiors. Prepare small amount of the same solution in one of the tanks, flow it to the bottler through the lines, then drain.

\*See Penchem representative for cleaning detergent recommendations.

*rinse with potable water before re-using.*  
*add: all food & food handling utensils must be covered with impervious material or removed from the room before treatment. All surfaces must be dry before re-introducing food items or utensils.*

*use or specify, for common surfaces of equipment must be rinsed with potable water before reuse.*

**Sanitizing Water Carbonators**

Run 200 p.p.m. B-K Solution into the water chamber, drain after 15 minutes.

**Disinfecting and Deodorizing Washroom**—Wash toilet bowls, seats, urinals and sinks thoroughly. Then wash or spray with 1000 p.p.m. B-K Solution.

**Disinfecting Operating Rooms, Other Critical Areas**—Scrub floors as usual, then wash or spray thoroughly floors, walls and ceilings with 1000 p.p.m. B-K Solution. Go over woodwork and apparatus with a cloth wet with 1000 p.p.m. B-K Solution.

**Stains on Skin**—To remove mercurochrome, iodine, argyrol, ink, etc., from the skin use 30,000 p.p.m. B-K Solution.

**First Aid Uses**—For cuts, scratches, surface wounds, apply 20,000 p.p.m. B-K Solution. Then cover loosely with gauze kept wet with Dakin's Solution.

**Dakin's Solution**—One part 30,000 p.p.m. B-K Solution to six parts water makes a solution of hypochlorite equivalent in concentration to Dakin's Solution and very low alkalinity.

**Disinfection**

**Swimming Pools—Fill-and-Draw Type**—The dry treatment is recommended—sprinkling B-K Powder over the surface of the water. Six level tablespoons of

*delete of no benefit in preventing Athlete's Food Disease*

*add: Rinse seat before reuse with water.*

*add: allow to air dry before using.*

*change to: As an aid in preventing Athlete's Food Disease*

*delete or get prior approval from FDA*

B-K Solution are required for each 10,000 gallons of water. Repeat this treatment every two hours during heavy bathing loads. Chlorination of private pools should be done just before use each day the pool is used. Test water to maintain a chlorine content of 0.4 to 0.6 p.p.m. during use. For public fill and draw type pools, recirculating pools, and continuous flow pools, use Pennwalt Sentry<sup>®</sup> or Clor Tabs. Write to Pennchem Department, Pennwalt Corp., Philadelphia, Pa. 19102, for directions for use.

**Water Cooling and Storage Tanks**—To help prevent slime, algae and moss in cooling, stock or storage tanks, add one level teaspoon of B-K Powder for each 50 gallons of water. Repeat treatment weekly or more frequently as needed.

**CHLORINATING CISTERN AND WELL WATER**—First: Prepare a 1% available chlorine solution as follows: Slowly add 2 1/2 ounces (about 25 teaspoons) of B-K Powder to 1 gallon water in stoneware or enameled crock. Stir while adding and continue to stir for 5 minutes with wooden paddle. Allow sludge to settle 6 hours or overnight, then pour or siphon 1% liquid into clean bottles, cork tightly. Store in cool, dark place.

Second: Add 3 oz. of 1% available chlorine solution per 500 gallons to cistern or well water which is clear and free from organic matter. If water is turbid, double this amount.

Third: To chlorinate a well, pour the required amount of 1% available chlorine solution down to the well casing, start the pump and return the water through the casing to the well. This makes mixing more complete and washes the casing and the pipe. After pumping, let the water stand overnight before using.

To chlorinate an open cistern, pour the required amount of the 1% available chlorine solution into the cistern and agitate the water if possible. Let the water stand overnight before using.

**Clean Cistern Thoroughly or Chlorine Treatment Will Not Be Effective**—Open cisterns should be cleaned once a year when the water is at its lowest stage. Any remaining water should be pumped from the cistern, all dirt removed, and the bottom and walls examined to make certain they are in satisfactory condition. If not, they should be given a coating of cement. Then spray walls and bottom with solution prepared by add-

ing 1 ounce of 1% available chlorine solution to 1 gallon of water. Before cistern water is used, chlorinate according to above directions.

**Calculating Amount of Water in Cisterns**—Rectangular or Square Cisterns—Multiply the length times the width times the depth (all in terms of feet) times 7.5. Example: To determine the number of gallons in a cistern 6 feet long by 5 feet wide containing 7 feet of water:

$$6 \times 5 \times 7 \times 7.5 = 1575 \text{ U. S. gallons}$$

**Cylindrical Cisterns**—Multiply the diameter times the diameter times the depth (all in terms of feet) times 5.878. Example: To determine the number of gallons in a cylindrical cistern which is 5 feet in diameter and contains 7 feet of water:

$$5 \times 5 \times 7 \times 5.878 = 1028.5 \text{ U. S. gallons}$$

### Disinfecting and Sanitizing

**Dish Cloths, Sponges and Mops**—Wash, then immerse in 200 p.p.m. B-K Solution for 5 minutes. Rinse in clear water.

**Work Tables, Sinks and Floors**—Wash in the usual way, then wash or spray thoroughly with 1000 p.p.m. B-K Solution.

**Mildew**—Scrub surface first, then wash with 1000 p.p.m. B-K Solution and let dry.

**Waste Cans**—Wash first with hot water and detergent, then wash or spray with 1000 p.p.m. B-K Solution.

**\*Refrigerators**—To help kill bacteria that cause spoilage and decay, wash interior surfaces, drain pipes, racks and shelves with detergent and hot water, follow by washing with 1000 p.p.m. B-K Solution.

**Dishes, Glasses and Silverware**

1. Scrape and prewash utensils and glassware whenever possible.
2. Wash with a good detergent or compatible cleaner.
3. Rinse with clean water.
4. Sanitize in a solution containing 2 level B-K Powder spoons for each 2 gallons of water (200 p.p.m.). Immerse all utensils for at least two minutes or for contact time specified by governing sanitary code.

5. Place sanitized utensils on a rack or drainboard to air.

**Remove Stains from Dishes**—Stains and discolorations in cracks can be removed from dishes by immersing them, after washing, in 1000 p.p.m. B-K Solution overnight. If stains remain, use a cloth wet with this solution and rub the dishes. Rinse dishes thoroughly.

### Incubation

**Hatching Trays and Utensils**—Empty and clean water dishes and feed troughs daily. Disinfect by washing with 1000 p.p.m. B-K Solution. Clean trays and feeding floor, then disinfect with same solution.

**Before Incubation**—Before starting any hatch, clean thoroughly incubator, incubator room and all equipment with a hot detergent solution. Then spray heavily with 1000 p.p.m. B-K Solution. Disinfect eggs before placing in incubator by dipping in 200 p.p.m. B-K Solution. Do not wipe eggs after dipping.

**During Incubation**—For disinfecting and deodorizing during the incubation period, spraying interior of incubator and eggs frequently with 1000 p.p.m. B-K Solution is highly recommended. This does not alter the rate of water evaporation from the eggs nor interfere with their ability to hatch.

**After Hatching**—After each hatch, clean hatching trays by soaking in a warm detergent solution. Brush with a stiff brush, then sanitize by spraying with 1000 p.p.m. B-K Solution, or immerse for one-half minute in 200 p.p.m. B-K Solution.

**Drinking Water—Baby Chicks**—For the first three days, disinfect each day's drinking water by adding 1 level teaspoon of B-K Powder to each 2 gallons. After the third day, add 1/2 level teaspoon B-K Powder to each 2 gallons of water. Prepare fresh drinking water each day.

**Drinking Water—Adult Birds**—For open vessels, add to each day's drinking water 1 level teaspoon of B-K Powder to each 2 gallons. For founts, add 1/2 level

\*See Pennchem representative for cleaning detergent recommendations.

delete or include  
adequate directions  
for use. See FAD  
enclosure

delete: we cannot  
accept recommendations  
for stock solutions  
such solutions must  
be used as needed.  
they cannot be left  
unattended.



B-K Chlorine-Bearing Powder is a hypochlorite in convenient powder form that has been in widespread use for over 30 years. A dependable disinfectant for odorless sanitation. ~~It is essential for the health of your livestock.~~ <sup>3</sup> The proven advantages of B-K are yours at less cost than many other disinfectants and deodorants. Use it in warm or cold water. B-K makes a great job.

### HOW TO PREPARE B-K SOLUTIONS

B-K Solutions	U. S. Gallons	Canadian Gallons
100 p.p.m. **	1/2 level tsp. per 2 gal. water	1/2 level tsp. per 1 1/2 gal. water
200 p.p.m.	1 level tsp. per 2 gal. water	1 level tsp. per 1 1/2 gal. water
1000 p.p.m.	5 level tsp. per 2 gal. water	3 level tsp. per 1 gal. water
5000 p.p.m.	12 1/2 level tsp. per 1 gal. water	7 1/2 level tsp. per 1 gal. water
30,000 p.p.m.	9 1/2 level tsp. per 1 pint water	12 level tsp. per 1 pint (Can.) water

\*\* B-K Solution concentrations (B-K Solution 100 p.p.m., etc.) indicate the parts of chlorine per million parts of water (p.p.m.). Directions are for use with warm or cold water. Do not use B-K Solutions on clothes or rugs because of its bleaching action. The B-K spoon holds 1/2 teaspoon, level full.

**UTENSILS**—Clean thoroughly, rinse with hot water and invert on rack to drain and dry. Just before using, rinse thoroughly inside surfaces including interior of can covers with 200 p.p.m. B-K Solution (1 level teaspoon per 2 gallons of water). Allow 2 minutes' exposure.

**COWS**—For producing milk low in bacteria count, wipe udder and teats of each cow with clean cloth wrung out of 200 p.p.m. B-K Solution (1 level teaspoon per 2 gallons of water) before milking. Use a strip cup to check for signs of mastitis. This also removes foremilk which usually contains many bacteria and is low in fat content.

After milking each cow dip teat cups first in a pail full of clear water, then in pail containing 200 p.p.m. B-K Solution. This helps prevent the spread of mastitis. Strain milk and cool promptly to 50°F. or below. Store

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filled cans in a cooling tank or mechanical cooler. Make sure cooling water is circulated and comes above level of milk inside cans.

**MILKING MACHINES**—Immediately after milking, rinse machine by drawing a pail of water, preferably warm, through the teat cups, dousing them up and down. Rinse milker pail and all other utensils.

Clean teat cup assembly by drawing 2 gallons of hot water containing detergent\* through teat cups. Brush all parts that can be reached.

Immerse and BRUSH milking machine pail, pail head, and all other utensils in a wash sink containing warm water and detergent\*. Rinse in clear hot water. Store all utensils and metal parts inverted on sanitary racks in clean, well-ventilated enclosure or screened milk house. Store teat cups, inflations and tubes as directed by sanitarian or feedman. Immediately before use, assemble machine and draw 2 gallons of 200 p.p.m. B-K Solution through the unit. Allow 2 minutes' exposure.

As often as recommended by your sanitarian, disassemble machine completely, immerse in a wash sink containing warm water and detergent\*. Brush each part thoroughly inside and out. Rinse in clear hot water.

**PIPELINE MILKING MACHINES**—Just before each milking, circulate a 100 p.p.m. B-K Solution (1 level teaspoon in each 4 gallons of water) for 5 minutes. When circulating by pump, open each milk valve for a few seconds. When circulating by vacuum, brush each milk valve by pushing a small brush through the valve into the flowing stream to pick up the B-K Solution. The same solution may be used for sanitizing pans, cans, strainers and bulk holding tanks.

**BULK MILK HOLDING AND COOLING TANKS**—Immediately before using tank to hold milk, sanitize with 100 p.p.m. B-K Solution (1 level teaspoon per 4 gallons of water). Brush, splash, or spray the solution over all interior surfaces. Allow 2 minutes' exposure.

\*See Pennchem representative for cleaning detergent recommendations

Solution which collects in the bottom of the tank should be drained through outlet valve.

**LIVESTOCK—CUTS, SORES AND SURFACE WOUNDS**—Clip hair around part and apply stock solution. Apply daily 1000 p.p.m. B-K Solution (2 1/2 level teaspoons per gallon of water).

**BARNIS**—To disinfect. Clean premises thoroughly, remove all bedding and burn if disease is present. Scrub floors, walls and stanchions with hot lye solution. Then spray with 1000 p.p.m. B-K Solution (2 1/2 level teaspoons per gallon of water).

**FLOW METHOD OF SANITIZING**—Immediately before use, start at the receiving tank or dump vat and flow 100 p.p.m. B-K Solution through all piping into each pump, cooler, vat and filter. The solution, as it is drained from the filter, should not test less than 50 p.p.m.

**SPRAY METHOD OF SANITIZING**—Leave equipment disassembled after cleaning. Immediately before use, fill sprayer tank with 200 p.p.m. B-K Solution and spray exposed and accessible equipment surfaces. Use an extension rod to send spray into valves, pumps, tanks and other enclosed spaces. The sprayed solution, as it is drained off, should not test less than 50 p.p.m.

**COMBINATION SPRAY AND FLOW METHOD**—Just before equipment is to be used, spray with 200 p.p.m. B-K Solution the interior surfaces of receiving and storage tanks, vats, pasteurizers and/or any equipment that cannot be sanitized by flow method. Pump 100 p.p.m. B-K Solution through the entire system from receiving tank to filter, reaching all surfaces inaccessible to the spray. At drain off point, spray and flow solutions should not test less than 50 p.p.m.

**HAND-WASHING UTENSILS IN 3-COMPARTMENT SINKS**—Wash bottles in the first compartment. Give bottles a warm rinse in the second compartment, then immerse in 100 p.p.m. B-K Solution for 2 minutes in the third compartment. The solution in the third compartment should not be allowed to test less than 50 p.p.m. Should it test below 50 p.p.m., prepare a fresh solution.

*Must be deleted or get approval from FDA, Bureau of Vet. Medicine*

*we will accept soap & detergent but not lye*

*add allow to dry before reintroduce animals*

*4 minutes with potable water or reduce to 100*

*Use a single service towel for each cow. Do not reintroduce contaminated towel into clean solution.*

*This label cannot have use directions and dosages for other than this product.*

*add: drip dry before using*  
*add: empty all excess before using*

*add: allow equipment to drain completely by inverting; do not use until dry.*

teaspoon to each 2 gallons. Prepare fresh drinking water daily. Be sure that birds have sufficient drinking water at all times. Place founts and open vessels so that they will not be contaminated with droppings or litter.

**Coop Disinfection**—Scrub floors, walls, nest boxes, dropping boards, perches, and roosts with a hot detergent solution. Then spray with 1000 p.p.m. B-K Solution.

**Dry Expectorant Dust for Respiratory Disorders**—Place birds in a house or coop that can be closed tightly. After they have gone to roost, dust B-K Powder over their heads using a dust gun. Dust heavily until the birds sneeze freely. This helps to dislodge the mucous from the upper respiratory tract. Coop or house should be left tightly closed for 2 hours, after which normal ventilation should be allowed. The heavy dusting should be followed by 1 or 2 successive light dustings every 24 hours, depending upon the improvement of the birds. Coops need not be closed during light dustings. Ordinarily, 1 heavy and 2 light dustings will suffice.

Total Problem Solving Capabilities  
with a complete line of Sanitation  
and Maintenance Chemicals.

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gets the job done fast.

With better people, products and service.