Y4 57125-1 PM 32

12 OCT 1988

The Dial Corporation
Technical Center
15101 North Scottsdale Road
Scottsdale, AZ 85254-2199

Attention: Helen North-Root, Ph.D.

Gentlemen:

Subject: Purex Bleach
EPA Registration No. 57125-1
Your Amendment Dated September 26, 1988

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

Sincerely yours,

Jeff Kempter
Product Manager (32)
Antimicrobial Program Branch
Registration Division (TS-767C)

Enclosure

53687:I:Pringle:K-4:KENCO:10/6/88:11/21/88:CT:VO:CT

CONCURRENCES

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SYMBOL | TS-767C | | | | | | |
| SURNAME | Pringle | | | | | | |
| DATE | 10/7 | | | | | | |

EPA Form 1320-1 (12-70) OFFICIAL FILE COPY

2/34

Labeling for Purex Bleach

Type Size

Front Panel:

1/16 in. (EPA (EST (1124 (CO (-1 (IL (-2 (OH (-2 (MN (-1

2 in. PUREX BLEACH

3/8 in. °whitens °brightens °removes stains °disinfects °sanitizes °deodorizes

1/8 in. (Active Ingredient: Sodium Hypochlorite.....5.25% by wt.
(Inert Ingredients: .....94.75% by wt.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

OCT 12 1988

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 5712S-1

12 pt. KEEP OUT OF REACH OF CHILDREN

18 pt. WARNING

10 pt. See back panel for additional precautionary statements

3/16 in. NET CONTENTS 1 GALLON (3.78L )
(The Dial Corporation
3/32 in. (Phoenix, Arizona 85077
(EPA Reg. No. 1124-15

3/24

Dial/Purex

Type Size

Labeling for Purex Bleach

Back Panel:

3/32 in. EPA Est. 1124-CA-2; FL-1; MO-1; PA-2; TX-2; VA-1; WA-1; GA-1; LA-1

PUREX BLEACH

DIRECTIONS FOR USE

8 pt. (It is a violation of federal law to use this product in a manner inconsistent with its labeling

LAUNDRY USE

Purex Liquid Bleach is an effective economical all temperature laundry additive to whiten, brighten and remove stains from your wash. Purex Liquid Bleach also disinfects, sanitizes and deodorizes your washables.
Can be used on cotton, linen, polyester and most cotton blends.

DIRECTIONS FOR LAUNDERING

° REMOVING STAINS - Pretreat stubborn stains. Use 1/4 cup Purex Bleach per gallon of water. For stubborn stains from fruit, grass, tea, coffee, scorch, ink and mildew, soak stained area in the solution 5 minutes. Rinse well. Repeat if necessary. Use only in glass, rubber, plastic, porcelain or enameled containers.

° Separate laundry by color and fabric - wash whites separately from dark colors. Purex Bleach is safe for most colorfast washables, even many garments with "Do not bleach" labels. To test your colored fabrics for bleachability mix one tablespoon Purex Bleach with 1/4 cup water, place a drop on a hidden area of the garment, let stand one minute then blot. If the fabric and trim remain color-true, you're "Purex safe."

° HAND LAUNDRY - Mix 1/8 cup Purex Bleach per 2 gallons sudsy water. Add laundry. Wash then rinse well.

° NORMAL LAUNDERING - Purex Bleach may be added to the wash water before detergent and laundry are put in or added 5 minutes after the wash cycle has begun. Be sure to dilute bleach in one quart of water before adding to laundry in the washing machine.

° TOP LOADING MACHINES: 1 CUP PER LOAD, 1-1/2 CUP PER LOAD FOR LARGE CAPACITY MACHINES: FRONT LOADING MACHINES: 1/2 CUP PER LOAD

° DISINFECTING LAUNDRY - Add recommended amount of Purex Bleach to the washing machine with water. Pre soak laundry for 10 minutes. Add detergent. Complete wash/rinse cycle.

° SANITIZING LAUNDRY - Add recommended amount of Purex Bleach to the washing machine with water. Pre soak laundry for 5 minutes. Add detergent. Complete wash/rinse cycle.

Type Size

Labeling for Purex Bleach

Back Panel Cont'd:

° DEODORIZING AND SANITIZING - Baby clothes, diapers, dish cloths, handkerchiefs, etc. 1 tablespoon Purex to 1 gallon water. First wash, then soak in solution for 10 minutes. Rinse well.

° DIAPER PAIL PRE-SOAK - Use 1/8 cup Purex per 2 gallons of water. First flush out soiled diapers. Then soak in the bleach solution for 10 minutes. Rinse well.

DO NOT USE ON SILK, WOOL, ACETATE, SPANDEX, LEATHER OR ACETATE RAYON

HOUSEHOLD USES FOR DEODORIZING, DISINFECTING AND SANITIZING

Purex helps with all kinds of household chores. Use Purex to brighten your bathroom and kitchen. Purex disinfects, sanitizes and deodorizes, removing stubborn stains and odor causing germs wherever they may occur. Yet, because it's so economical, Purex will help you save money while it helps you around the house.

6 pt. min.

° SANITIZING AND DEODORIZING KITCHENS, APPLIANCES, DISHES, UTENSILS - To sanitize countertops, drainboards, appliances, dishes, utensils and other surfaces which food may contact, first clean surface, then wipe with or immerse in a solution of 1 tablespoon Purex per gallon of water (200 ppm available chlorine). Allow 2 minutes of contact, then drain. Do not rinse; allow surfaces to air dry. Treat wooden utensils, chopping blocks and cutting boards the same way with 3 tablespoons Purex per gallon of water (600 ppm available chlorine), but rinse following the 2 minute exposure to the Purex sanitizing solution. Do not use on silverware. Prepare the Purex solution immediately before using.

Purex Bleach kills household germs such as staph and strep, Influenza A and B viruses and athelete's foot fungus on environmental surfaces.

° DISINFECTING AND DEODORIZING BATHROOMS - To disinfect, deodorize and eliminate mold and mildew from washable surfaces such as tubs, showers, countertops, sinks, ceramic tile and vinyl flooring, spread a solution of 1-1/2 cups Purex per 2 gallons of water on clean surface. Let stand 10 minutes.

TOILET BOWLS - To sanitize and deodorize pre-cleaned toilet bowls use 1/2 cup Purex Bleach. Flush, pour in bleach - swab with brush, making sure to get under the rim, and let stand for 10 minutes. Flush. DO NOT use with bowl cleaners or any other household chemicals.

° SICKROOM EQUIPMENT - Wash all surfaces thoroughly. Rinse with a solution of 1-1/2 cups Purex per 2 gallons of water. Let stand 10 minutes.

° GARBAGE CANS - Wash thoroughly with warm soapy solution. Rinse, then spread a solution of 1-1/2 cups Purex Bleach per 2 gallons of water over all surfaces. Let stand 10 minutes, then drain.

Avoid prolonged contact with metal since corrosion or discoloration may occur. Do not use Purex Bleach on chipped enamel.

5/24 Dial Revised

1 e Size

Labeling for Purex Bleach

Back Panel Cont'd:

CONTAINS NO PHOSPHORUS

6 pt. min.

For free information on Purex Liquid Bleach uses for farm, dairy, restaurant, hospital and other household uses, write specifying which directions you require to: The Dial Corporation, Consumer Service, Phoenix, AZ 85077.

STORAGE AND DISPOSAL: Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse empty container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes eye and skin irritation. Do not get in eyes or on skin. Harmful if swallowed.

8 pt.

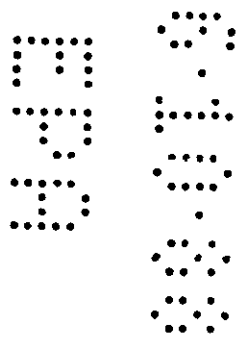
FIRST AID: If contact with eyes occurs, flush with water for at least 15 minutes. Get prompt medical attention. If contact with skin occurs, wash with plenty of soap and water. If swallowed, drink large quantities of water. Do not give vinegar or other acids. Do not induce vomiting. Get prompt medical attention.

ENVIRONMENTAL HAZARDS

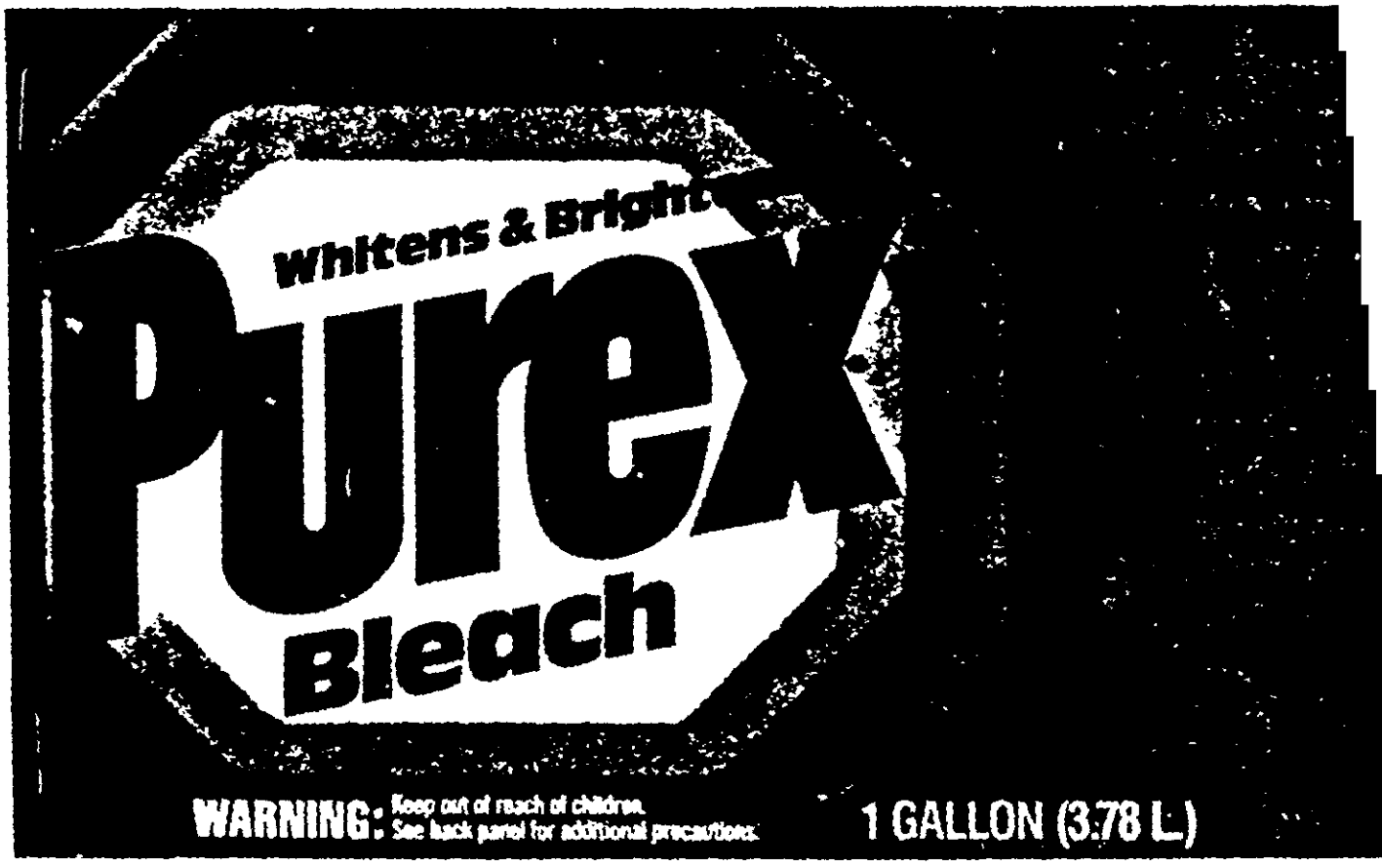
This product is toxic to fish. Do not discharge into lakes, streams, ponds or public waterways unless in accordance with a NPDES permit. For guidance, contact the regional office of the U.S. Environmental Protection Agency.

PHYSICAL OR CHEMICAL HAZARDS

STRONG OXIDIZING AGENT: Mix only with water according to label directions. Mixing this product with other chemicals (such as toilet bowl cleaners, ammonia and acids) or organic matter may release fumes which are irritating to eyes, lungs and mucous membranes.



INTENDED COLORS OF LABEL



(Brochure)

PUREX LIQUID BLEACH

For Laundry and Household Use

° Disinfects ° Deodorizes ° Sanitizes
° Whitens, brightens and removes stains

° IN THE LAUNDRY - Purex Bleach is one of the most effective laundry additives in the marketplace

- ° Purex Bleach whitens whites, brightens brights and removes even the most stubborn stains in your wash (follow directions on the label).
- ° Purex Bleach disinfects, sanitizes and deodorizes your laundry by killing germs and their odors.
- ° Purex Bleach boosts the effectiveness of detergents, even in cold water.
- ° Purex Bleach is safe for most color-fast washables, even many of those garments with "Do Not Bleach" labels are bleachable. A simple easy way to test your colored fabrics for bleachability is: Mix one tablespoon of Purex Bleach with 1/4 cup of water, place a drop on a hidden area of the garment, let stand one minute then blot. If the fabric and trim remain color-true, you're "Purex safe."
- ° Purex Bleach kills germs and disinfects diapers - flush out soiled diapers. Then just soak in covered pail containing 1/8 cup Purex Bleach and two gallons of water for at least 10 minutes. Launder as usual.

° IN THE HOME - Purex is an effective disinfecting and sanitizing agent that is economical to use in your bathroom and kitchen. Purex Bleach kills household germs such as staph and strep, influenza A and B viruses and athletes foot fungus on environmental surfaces.

° IN THE BATHROOM - Purex Bleach disinfects and deodorizes bathtubs, sinks, showers and floors. To disinfect these surfaces mix 3/4 cup Purex per gallon of water, spread solution with cloth. Let stand 10 minutes. To remove mold and mildew from bathroom tile and grout, wipe surface with a solution of 3/4 cup Purex per gallon of water. Rinse.

- ° Toilet bowls: To deodorize and sanitize pre-cleaned toilet bowls, pour in 1/2 cup Purex. Swab with brush making sure to get under the rim and let stand for 10 minutes. Flush. DO NOT use with other toilet bowl cleaners or any other household products such as ammonia, vinegar, rust removers. To do so may release hazardous gases.

- IN THE SICKROOM - Use Purex Bleach to disinfect and deodorize sickroom equipment. Wash all surfaces thoroughly, then rinse. To disinfect rubber or plastic sheets and bedpans immerse or keep articles wet in a solution of 3/4 cup Purex per gallon of water for at least 10 minutes.

- IN THE KITCHEN - Purex Bleach brightens, disinfects, sanitizes and deodorizes.

  - To disinfect kitchen sinks, floors, countertops, appliances*, tile, enamel and porcelain surfaces mix 3/4 cup Purex Bleach per gallon of water. Spread solution with a cloth and let stand 10 minutes. *Check manufacturers' instructions regarding advisability of applying bleach to all surfaces of appliances and advisability of rinsing.

  - To sanitize kitchen countertops and cutting boards, where food contact is likely, clean surface thoroughly, then mix 1 tablespoon Purex per gallon water (200 ppm available chlorine). Wipe on the solution with a clean cloth, let stand for at least 2 minutes. Do not rinse. Allow to air dry.

  - To sanitize wooden cutting boards and chopping blocks first clean surface, then spread the Purex solution (3 tablespoons Purex per gallon water: 600 ppm available chlorine) with a cloth. Let stand 2 minutes. Rinse in 200 ppm available chlorine solution.

  - To sanitize glasses, dishes and utensils scrape and prewash items with a good detergent or cleaner. Rinse with clean water. Prepare a solution of 1 tablespoon Purex per gallon of water (200 ppm available chlorine). Immerse dishes, glasses and utensils (do not use on silverware) for at least 2 minutes. Place sanitized dishes, etc. on a rack or drainboard to air dry. Do not rinse. Do not reuse sanitizing solution. Prepare sanitizing solution immediately before using.

  - To keep garbage pails and trash cans fresh and disinfected, scrub clean with detergent solution, rinse, then disinfect by mixing 3/4 cup Purex to each gallon of water. Apply solution with a cloth or swish over surfaces. Let stand 10 minutes, then drain.

Other Uses for Purex Liquid Bleach

- Brighten and restore stained marble, concrete and patio stone; wash with detergent, rinse, then wipe surface with a solution of 3/4 cup Purex Bleach to a gallon of water. Rinse and dry.

- Purex Liquid Bleach can be used for chlorinating swimming pools and wading pools.

- Swimming pools: One and one-half to 3 cups of Purex Bleach per 10,000 gallons water for daily pool maintenance to yield 0.6 to 1.0 ppm available chlorine. For a new pool - one to 2 gallons of Purex Bleach per 10,000 gallons of water. Use sufficient bleach to obtain .6 to 1.0 ppm available chlorine. Check with a pool testing kit daily.

- Wading pools: Purex is safe for plastic wading pools. Use 1/4 cup of Purex Bleach for each 100 gallons of water. Empty small pools daily. Add 2 tablespoons of Purex daily for larger pools.

- Purify drinking water when needed as a precaution against bacterial contamination: Use 1 drop of Purex Bleach for each gallon water. Let stand 30 minutes before drinking.

- To control fungus and mildew on asphalt or wooden roofs and sidings, first remove all physical soil by brushing and hosing with clean water. Then apply a solution of 1-1/2 cups Purex Bleach per gallon of water (5000 ppm available chlorine) with a brush or spray. After 30 minutes, rinse by hosing with clean water.

# RESTAURANT AND FOOD HANDLING ESTABLISHMENT SANITIZATION PROCEDURES

| | |
|---|---|
| PUREX | FLEECY WHITE |
| HILEX | DUTCH |

## BLEACH SOLUTION TABLE

This table indicates how much BLEACH should be added to water to make up the solutions called for in the directions that follow. Health authorities may require specific dilutions for certain uses. Refer to local health regulations for further details.

| Solution Number | Approximate ppm Available Chlorine* | Solution |
|---|---|---|
| No. 1 | 200 | 5 oz BLEACH to 10 gal. water |
| No. 2 | 600 | 15 oz BLEACH to 10 gal. water |

*PUREX BLEACH PRODUCTS contains 5-1/4% sodium hypochlorite by weight. 5-1/4% sodium hypochlorite = 50,000 ppm available chlorine by weight.

## SANITIZATION PROCEDURES

Thoroughly clean all surfaces and equipment with detergent solution.

Prior to use, prepare appropriate sanitizing solution and treat equipment as follows:

1. NON-POROUS SURFACES

   Rinse surfaces or immerse equipment in Solution No. 1 for at least 2 minutes. Allow sanitizer to drain. DO NOT rinse equipment or surfaces with water after treatment.

2. POROUS SURFACES

   Rinse surfaces or immerse equipment in Solution No. 2 for at least 2 minutes. Rinse equipment or surfaces with Solution No. 1 (200 ppm available chlorine) after treatment.

Flow pressure, clean-in-place and spray/fog methods for sanitizing equipment are available upon request. Write The Dial Corporation, Consumer Service, Phoenix, AZ 85077.

# FARM AND DAIRY
# SANITIZATION AND DISINFECTION PROCEDURES

PUREX FLEECY WHITE

HILEX DUTCH

## BLEACH SOLUTION TABLE

This table indicates how much BLEACH should be added to water to make up the solutions called for in the directions that follow. Health authorities may require specific dilutions for certain uses. Refer to local health regulations for further details.

| Solution Number | Approximate ppm Available Chlorine | Solution |
|---|---|---|
| No. 1 | 200 | 5 oz BLEACH to 10 gal. water |
| No. 2 | 600 | 15 oz BLEACH to 10 gal. water |
| No. 3 | 1000 | 25 oz BLEACH to 10 gal. water |

*PUREX BLEACH PRODUCTS contains 5-1/4% sodium hypochlorite by weight. 5-1/4% sodium hypochlorite = 50,000 ppm available chlorine by weight.

## DAIRY EQUIPMENT SANITIZATION

Thoroughly clean all surfaces and equipment with a detergent solution to remove milk fat and slime. Rinse with water..

Prior to use, prepare appropriate sanitizing solution and treat equipment as follows:

1. NON-POROUS SURFACES

   Rinse surfaces or immerse equipment in Solution No. 1 for at least 2 minutes. Allow sanitizer to drain. DO NOT rinse equipment or surfaces with water after treatment.

2. POROUS SURFACES

   Rinse surfaces or immerse equipment in Solution No. 2 for at least 2 minutes. Rinse equipment or surfaces with Solution No. 1 (200 ppm available chlorine) after treatment.

Flow pressure, clean-in-place and spray/fog methods for sanitizing equipment are available upon request. Write The Dial Corporation, Consumer Service, Phoenix, AZ 85077.

## FOOD EGG SANITIZATION

Thoroughly clean all eggs. Prepare Solution No. 1. Spray warm sanitizer (below 130°F) on eggs, completely wetting the eggs. Allow to dry thoroughly. DO NOT apply a potable water rinse. DO NOT reuse sanitizing solution.

## DISINFECTION OF FARM PREMISES

Remove all animals, poultry, and feed from premises, vehicles, and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes, and other facilities occupied or traversed by animals or poultry. Empty all troughs, racks, and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. To disinfect, saturate all surfaces with Solution No. 3 for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals or poultry, as well as the cleaned forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings, cars, boats, and other closed spaces. Do not house livestock or poultry or employ equipment until chlorine has been dissipated. All treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers must be rinsed with potable water before reuse.

Dial

## Purex Bleach

### DISINFECTANT FOR THE MEDICAL ENVIRONMENT

Purex Bleach should be an important part of the disinfection program of hospitals, medical, dental and veterinary clinics, and nursing and rest homes.

Purex Bleach is an effective disinfectant against a variety of microorganisms found on hard surfaces:

- Staphylococcus aureus
- Salmonella choleraesuis
- Pseudomonas aeruginosa
- Streptococcus sp.
- Trichophyton mentagrophytes
- Influenza A-2/Hong Kong/8/68 virus
- Influenza B/Hong Kong/5/72 virus

Purex Bleach is effective as a laundry disinfectant against

- Staphylococcus aureus
- Klebsiella pneumoniae
- Pseudomonas aeruginosa

Directions for Use

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

DISINFECTION OF HARD SURFACES SUCH AS TILE, FORMICA, PORCELAIN, ENAMEL, LINOLEUM AND STAINLESS STEEL

RINSE METHOD - Prepare a disinfecting solution by thoroughly mixing 3/4 cup of Purex Bleach with 1 gallon of water to provide approximately 2400 ppm available chlorine by weight. Clean surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the disinfecting solution, maintaining contact with the solution for at least 10 minutes. Do not rinse surface with water after treatment and do not soak equipment overnight.

IMMERSION METHOD - Prepare a disinfecting solution by thoroughly mixing in an immersion tank 3/4 cup of Purex Bleach with 1 gallon of water to provide approximately 2400 ppm available chlorine by weight. Clean surfaces in the normal manner. Prior to use, immerse equipment in the disinfecting solution for at least 10 minutes and then allow the disinfectant to drain. Do not rinse equipment surfaces with water following treatment.

FOOD CONTACT SURFACES - Following disinfection of contact surfaces using either the rinse method or immersion method described above, rinse all surfaces with a 200 ppm available chlorine solution. Prepare a 200 ppm sanitizing solution by thoroughly mixing 5 oz of Purex Bleach with 10 gallons of water. Following rinsing of the food contact surfaces with the sanitizer, allow the sanitizing solution to drain. Do not rinse surfaces with water after treatment. Allow to air dry. Do not reuse sanitizing solution.

# PUREX LIQUID BLEACH

## LIQUID CHLORINE BLEACH - Supplemental Information #001

## SWIMMING POOL WATER DISINFECTION

For a new pool or spring start-up, superchlorinate with 128-256 oz. (1-2 gallons) of Purex Liquid Bleach for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2 to 7.6. Adjust and maintain the alkalinity of the pool to between 50 to 100 ppm.

To maintain the pool, add manually or by a feeder device 25 oz. of Purex Liquid Bleach for each 10,000 gallons of water to yield an available chlorine residual between 0.6 to 1.0 ppm by weight. Stabilized pools should maintain a residual of 1.0 to 1.5 ppm available chlorine. Test the pH, available chlorine residual and alkalinity of the water frequently with appropriate test kits. Frequency of water treatment will depend upon temperature and number of swimmers.

Every seven days, or as necessary, superchlorinate the pool with 128 - 256 oz. (1 - 2 gallons) of Purex Liquid Bleach for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Do not reenter pool until the chlorine residual is between 1.0 and 3.0 ppm.

At the end of the swimming pool season or when water is to be drained from the pool, chlorine must be allowed to dissipate from treated pool water before discharge. Do not chlorinate the pool within 24 hours prior to discharge.

WINTERIZING POOLS - While water is still clear and clean, apply 8 oz. of Purex Liquid Bleach per 1000 gallons, while filter is running, to obtain a 3 ppm available chlorine residual, as determined by a suitable test kit. Cover pool, prepare heater, filter and heater components for winter by following manufacturers' instructions.

## SPAS, HOT-TUBS, IMMERSION TANKS, ETC.

Spas/Hot-tubs - Apply 12 1/2 oz. of Purex Liquid Bleach per 1000 gallons of water to obtain a free available chlorine concentration of 5 ppm, as determined by a suitable chlorine test kit. Adjust and maintain pool water pH to between 7.2 and 7.8. Some oils, lotions, fragrances, cleaners, etc. may cause foaming or cloudy water as well as reduce the efficiency of Purex Liquid Bleach.

To maintain the water, apply 12 1/2 oz. of Purex Liquid Bleach per 1000 gallons of water over the surface to maintain a chlorine concentration of 5 ppm.

After each use, shock treat with 18 1/2 oz. of Purex Liquid Bleach per 500 gallons of water to control odor and algae.

During extended periods of disuse, add 7 1/2 oz. of Purex Liquid Bleach daily per 1000 gallons of water to maintain a 3 ppm chlorine concentration.

## DIRECTIONS FOR USE

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

## STORAGE AND DISPOSAL

Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

PUREX LIQUID BLEACH

LIQUID CHLORINE BLEACH - Supplemental Information #002

SANITIZATION OF NONPOROUS FOOD CONTACT SURFACES

Rinse Method - A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to insure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 2 1/2 oz. of Purex Liquid Bleach with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 5 oz. Purex Liquid Bleach with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient Purex Liquid Bleach to reestablish a 200 ppm residual. Do not rinse equipment with water after treatment and do not soak equipment overnight.

Sanitizers used in automated systems may be used for general cleaning but may not be re-used for sanitizing purposes.

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Immersion Method - A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to insure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 2 1/2 oz. of Purex Liquid Bleach with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 5 oz. of Purex Liquid Bleach with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient Purex Liquid Bleach to reestablish a 200 ppm residual. Do not rinse equipment with water after treatment.

Sanitizers used in automated systems may be used for general cleaning but may not be re-used for sanitizing purposes.

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Flow/Pressure Method - Disassemble equipment and thoroughly clean after use. Assemble equipment in operating position prior to use. Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing Purex Liquid Bleach in a ratio of 5 oz. with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 2 minutes to insure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine.

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Clean-In-Place Method - Thoroughly clean equipment after use. Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing Purex Liquid Bleach in a ratio of 5 oz. Purex Liquid Bleach with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 10 minutes to insure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine. Rinse system with potable water prior to use.

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Spray/Fog Method - Preclean all surfaces after use. Use a 200 ppm available chlorine solution to control bacteria, mold or fungi and a 600 ppm solution to control bacteriophage. Prepare a 200 ppm sanitizing solution of sufficient size by thoroughly mixing Purex Liquid Bleach in a ratio of 5 oz. Purex Liquid Bleach with 10 gallons of water. Prepare a 600 ppm solution by thoroughly mixing Purex Liquid Bleach in a ratio of 15 oz. Purex Liquid Bleach with 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Prior to using equipment, rinse all surfaces treated with a 600 ppm solution with a 200 ppm solution.

## SANITIZATION OF POROUS FOOD CONTACT SURFACES

Rinse Method - Prepare a sanitizing solution by thoroughly mixing 15 oz. of Purex Liquid Bleach with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least two minutes.

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Immersion Method - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 15 oz. of Purex Liquid Bleach with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Rinse equipment with water after treatment.

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Spray/Fog Method - Preclean all surfaces after use. Prepare a 600 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing Purex Liquid Bleach in a ratio of 15 oz. Purex Liquid Bleach with 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Prior to using equipment, rinse all surfaces with a 200 ppm available chlorine solution. Prepare a 200 ppm sanitizing solution by thoroughly mixing 5 oz. of Purex Liquid Bleach with 10 gallons of water.

## DIRECTIONS FOR USE

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

## STORAGE AND DISPOSAL

Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

PUREX LIQUID BLEACH

LIQUID CHLORINE BLEACH - Supplemental Information #003

SANITIZATION OF NONPOROUS NON-FOOD CONTACT SURFACES

Rinse Method - Prepare a sanitizing solution by thoroughly mixing 5 oz. of Purex Liquid Bleach with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

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Immersion Method - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 5 oz. of Purex Liquid Bleach with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

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Spray/Fog Method - Preclean all surfaces after use. Prepare a 200 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 5 oz. Purex Liquid Bleach with 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Prior to using equipment, thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.

DISINFECTION OF NONPOROUS NON-FOOD CONTACT SURFACES

Rinse Method - Prepare a disinfecting solution by thoroughly mixing 15 oz. of Purex Liquid Bleach with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the disinfecting solution, maintaining contact with the solution for at least 10 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

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Immersion Method - Prepare a disinfecting solution by thoroughly mixing, in an immersion tank, 15 oz. of Purex Liquid Bleach with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the disinfecting solution for at least 10 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

## SANITIZATION OF POROUS NON-FOOD CONTACT SURFACES

Rinse Method - Prepare a sanitizing solution by thoroughly mixing 15 oz. of Purex Liquid Bleach with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

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Immersion Method - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 15 oz. of Purex Liquid Bleach with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

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Spray/Fog Method - After cleaning, sanitize non-food contact surfaces with 600 ppm available chlorine by thoroughly mixing the product in a ratio of 15 oz. of Purex Liquid Bleach with 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Prior to using equipment, thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.

## DIRECTIONS FOR USE

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

## STORAGE AND DISPOSAL

Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

PUREX LIQUID BLEACH

LIQUID CHLORINE BLEACH - Supplemental Information #004

EMERGENCY DISINFECTION

Emergency Disinfection - When boiling of water for 1 minute is not practical, water can be made potable by using Purex Liquid Bleach. Prior to addition of the sanitizer, remove all suspended material by filtration or by allowing it to settle to the bottom. Decant the clarified, contaminated water to a clean container and add 1 drop of Purex Liquid Bleach to 1 gallon of water. Allow the treated water to stand for 30 minutes. Properly treated water should have a slight chlorine odor, if not, repeat dosage and allow the water to stand an additional 15 minutes. The treated water can then be made palatable by pouring it between clean containers for several times.

DIRECTIONS FOR USE

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

STORAGE AND DISPOSAL

Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

PUREX LIQUID BLEACH

LIQUID CHLORINE BLEACH - Supplemental Information #005

LAUNDRY SANITIZERS

In soaking suds - thoroughly mix 5 oz. of Purex Liquid Bleach to 10 gallons of wash water to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent. Immerse laundry for at least 11 minutes prior starting the wash/rinse cycle.

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In washing suds - thoroughly mix 5 oz. of Purex Liquid Bleach to 10 gallons of wash water containing clothes to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent and start the wash/rinse cycle.

COMMERCIAL LAUNDRY SANITIZERS

Wet fabrics or clothes should be spun dry prior to sanitization. Thoroughly mix 5 oz. of Purex Liquid Bleach with 10 gallons of water to yield 200 ppm available chlorine. Promptly after mixing the sanitizer, add the solution into the prewash prior to washing fabrics/clothes in the regular wash cycle with a good detergent. Test the level of available chlorine, if solution has been allowed to stand. Add more Purex Liquid Bleach if the available chlorine level has dropped below 200 ppm.

DIRECTIONS FOR USE

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

STORAGE AND DISPOSAL

Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

PUREX LIQUID BLEACH

LIQUID CHLORINE BLEACH - Supplemental Information #006

FARM PREMISES

Remove all animals, poultry and feed from premises, vehicles and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities occupied or transverse by animals or poultry. Empty all troughs, racks and other feeding and watering applicances. Thoroughly clean all surfaces with soap or detergent and rinse with water. To disinfect, saturate all surfaces with a solution of at least 1000 ppm available chlorine for a period of 10 minutes. A 1000 ppm solution can be made by thoroughly mixing 25 oz. of Purex Liquid Bleach with 10 gallons of water. Immerse all halters, ropes and other types of equipment used in handling and restraining animals or poultry, as well as the cleaned forks, shovels and scrapers used for removing litter and manure. Ventilate buildings, cars, boats and other closed spaces. Do not house livestock or poultry or employ equipment until chlorine has been dissipated. All treated feed racks, mangers, troughs, automatic feeders, fountains and waterers must be rinsed with potable water before reuse.

AGRICULTURAL USES

Post-harvest Protection - potatoes can be sanitized after cleaning and prior to storage by spraying with a sanitizing solution at a level of 1 gallon of sanitizing solution per tons of potatoes. Thoroughly mix 2 1/2 oz. of Purex Liquid Bleach to 2 gallons of water to obtain 500 ppm available chlorine.

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Disinfect leafcutting bee cells and bee boards by immersion in a solution containing 1 ppm available chlorine for 3 minutes. Allow cells to drain for 2 minutes and dry for 4 to 5 hours or until no chlorine odor can be detected. This solution is made by thoroughly mixing 1/2 tbsp. of Purex Liquid Bleach to 100 gallons of water. The bee domicile is disinfected by spraying with a 0.1 ppm solution until all surfaces are thoroughly wet. Allow the domicile to dry until all chlorine odor has dissipated.

Food Egg Sanitization - thoroughly clean all eggs. Thoroughly mix 5 oz. of Purex Liquid Bleach with 10 gallons of warm water to produce a 200 ppm available chlorine solution. The sanitizer temperature should not exceed 130°F. Spray the warm sanitizer so that the eggs are thoroughly wetted. Allow the eggs to thoroughly dry before casing or breaking. Do not apply a potable water rinse. The solution should not be re-used to sanitize eggs.

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Fruit and Vegetable Washing - thoroughly clean all fruits and vegetables in a wash tank. Thoroughly mix 12 1/2 oz. of Purex Liquid Bleach in 200 gallons of water to make a sanitizing solution of 25 ppm available chlorine. After draining the tank, submerge fruit or vegetables for 2 minutes in a second wash tank containing the recirculating sanitizing solution. Spray rinse vegetables with the sanitizing solution prior to packaging. Rinse fruit with potable water only prior to packaging.

## DIRECTIONS FOR USE

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

## STORAGE AND DISPOSAL

Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

PUREX LIQUID BLEACH

LIQUID CHLORINE BLEACH - Supplemental Information #007

AQUACULTURAL USES

Fish Ponds - Remove fish from ponds prior to treatment. Thoroughly mix 2 gallons of Purex Liquid Bleach to 10,000 gallons of water to obtain 10 ppm available chlorine. Add more Purex Liquid Bleach to the water if the available chlorine level is below 1 ppm after 5 minutes. Return fish to pond after the available chlorine level reaches zero.

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Fish Pond Equipment - Thoroughly clean all equipment prior to treatment. Thoroughly mix 5 oz. of Purex Liquid Bleach to 10 gallons of water to obtain 200 ppm available chlorine. Porous equipment should soak for one hour.

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Maine Lobster Ponds - Remove lobsters, seaweed, etc. from ponds prior to treatment. Drain the pond. Thoroughly mix 118 gallons of Purex Liquid Bleach to 10,000 gallons of water to obtain at least 600 ppm available chlorine. Apply so that all barrows, gates, rock and dam are treated with the product. Permit high tide to fill the pond and then close gates. Allow water to stand for 2 to 3 days until the available chlorine level reaches zero. Open gates and allow 2 tidal cycles to flush the pond before returning lobsters to pond.

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Conditioning Live Oysters - thoroughly mix 12 1/2 oz. of Purex Liquid Bleach to 10,000 gallons of water at 50 to 70°F to obtain 0.5 ppm available chlorine. Expose oysters to this solution for at least 15 minutes, monitoring the available chlorine level so that it does not fall below 0.05 ppm. Repeat entire process if the available chlorine level drops below 0.05 ppm or the temperature falls below 50°F.

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Control of Scavengers in Fish Hatchery Ponds - Prepare a solution containing 200 ppm of available chlorine by mixing 5 oz. of Purex Liquid Bleach with 10 gallons of water. Pour into drained pond potholes. Repeat if necessary. Do not put desirable fish back into refilled ponds until chlorine residual has dropped to 0 ppm, as determined by a test kit.

DIRECTIONS FOR USE

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

## STORAGE AND DISPOSAL

Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

PUREX LIQUID BLEACH

LIQUID CHLORINE BLEACH - Supplemental Information #008

MILDEW/FUNGUS/BOAT SLIME CONTROL

ASPHALT OR WOOD ROOFS AND SIDINGS

To control fungus and mildew, first remove all physical soil by brushing and hosing with clean water, and apply a 5000 ppm available chlorine solution. Mix 12 1/2 of Purex Liquid Bleach per gallon of water and brush or spray roof or siding. After 30 minutes, rinse by hosing with clean water.

BOAT BOTTOMS

To control slime on boat bottoms, sling a plastic tarp under boat, retaining enough water to cover the fouled bottom area, but not allowing water to enter enclosed area. This envelope should contain approximately 500 gallons of water for a 14 foot boat. Add 43 oz. of Purex Liquid Bleach to this water to obtain a 35 ppm available chlorine concentration. Leave immersed for 8 to 12 hours. Repeat if necessary. Do not discharge the solution until the free chlorine level has dropped to 0 ppm, as determined by a swimming pool test kit.

ARTIFICAL SAND BEACHES

To sanitize the sand, spray a 500 ppm available chlorine solution containing 12 1/2 oz. of Purex Liquid Bleach per 10 gallons of water at frequent intervals. Small areas can be sprinkled with a watering can.

DIRECTIONS FOR USE

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

STORAGE AND DISPOSAL

Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

## QUESTIONS AND ANSWERS ABOUT BLEACHING

1. QUESTION: Is it safe to use Purex Liquid Bleach on diapers or will this cause irritation to the baby's tender skin?

   ANSWER: We highly recommend the use of Purex Liquid Bleach in the laundry suds as an excellent means of brightening, sanitizing and deodorizing baby clothes and diapers. There should be no danger of the bleach causing irritation to the baby's delicate skin, since all of the bleach will be thoroughly removed from the fabric during the course of normal rinsing operation.

2. QUESTION: Is it possible to use Purex Liquid Bleach to whiten uniforms, blouses and other articles made of nylon?

   ANSWER: We are happy to be able to inform you that it is completely safe to use Purex Liquid Bleach on nylon fabrics. We have in our files a letter from the DuPont de Nemours Company from which we quote, "ordinary hypochlorite household bleaches will not harm nylon fabrics when used in a concentration recommended for cotton." Similar instructions are given for the care of Orlon and Dacron fabrics. The only precaution that we would make is that you be sure the fabric does not contain a mixture of rayon or silk with the nylon, Orlon or Dacron.

3. QUESTION: Is it true that chlorine bleach will destroy the bacterial action of a septic tank?

   ANSWER: We have contacted one of the leading septic tank installation companies in this area and also the Department of Agriculture concerning the effect of bleach upon the bacterial action of a septic tank. From the information received from these two sources we would conclude that if you are using a normal amount of bleach in your household operation it will not be harmful to your septic tank. It is only in larger commercial installations such as motels, laundries, etc., where large amounts of bleach are used that damage may be observed.

4. QUESTION: Is it better to soak clothes in bleach before washing them or should I add Purex Liquid Bleach to the rinse water?

   ANSWER: We recommend the addition of Purex Liquid Bleach to the suds in your washer as being the most simple and satisfactory method of bleaching your clothes. This method will give results which are just as effective as soaking the items in bleach before washing, and will eliminate this time consuming step from your washing procedure. Another advantage of using the bleach in the washer is that the rinse cycle of your machine will give excellent rinsing action and thus remove all of the bleach from the fabric. For ordinary laundering we recommend 1 ounce of Purex Liquid Bleach for each 2 gallons of water - this means 1 cup of Purex Liquid Bleach for a 16 gallon washer. Remember, Purex Liquid

Bleach actually brightens color-fast linens and cottons. Just be sure the color is really fast. If the label does not say so, or if you have any doubt, test a sample of the fabric before bleaching the entire garment.

5. QUESTION: Can chlorine bleach be used to brighten stained linoleum and asphalt tile or will it harm these surfaces?

   ANSWER: To keep a linoleum or asphalt tile floor covering bright and sparkling we suggest the addition of one ounce or 1/8 cup of Purex Liquid Bleach to each two gallons of your suds solution and then follow your usual mopping procedure.

   For brightening badly stained linoleum or asphalt tile surfaces we would recommend that you use a solution of 1/8 cup of Purex Liquid Bleach for each quart of cold water. Apply this solution with a cloth moistened with cold water and allow to remain in contact with the linoleum or asphalt tile for two minutes. At the end of this time be sure to rinse the surface thoroughly.

6. QUESTION: A neighbor told me that chlorine bleach might damage my automatic washer. Is this true?

   ANSWER: We have examined the use directions for most of the popular brands of automatic washers and the majority of these manufacturers recommend the use of chlorine bleach in their machines or state that there should be no damage to the machines from the use of chlorine bleach if used according to label directions. Many models now have automatic liquid bleach dispensers.

7. QUESTION: What is the best procedure for removing stubborn stains such as tea, coffee, etc.?

   ANSWER: For stubborn stain removal we recommend a solution of approximately 1/4 cup of Purex Liquid Bleach for each gallon of water. Soak the stained area for five minutes and then rinse thoroughly. Repeat this step if necessary.

   When removing stains from colored fabrics we suggest that you first test a small piece of the colored material in the bleach solution before treating the entire garment. The reason for this precaution is that many so called "fast colors", although they are stable to the action of soap or detergent and water, will not withstand the action of a chlorine type bleach and cannot, therefore, truly be called "fast colors". Many of the colored materials that are now in use are found to be stable to chlorine bleaches.

8. QUESTION: I have used Purex Liquid Bleach for many years on cottons and linens, but I have always wondered about using it on wool or silk. What about it?

   ANSWER: We are sorry that we cannot recommend the use of Purex Liquid Bleach on fabrics containing wool or silk. These particu-

lar fibers will not withstand the action of a chlorine bleach but may, in fact, be permanently damaged by it.

9. QUESTION: Can I add a little chlorine bleach to the water which I use to wash painted walls and woodwork?

ANSWER: We regret that we cannot recommend the use of Purex Liquid Bleach for cleaning painted walls, floors and woodwork. There is always the possibility that the bleach may cause damage to painted, waxed or varnished surfaces.

10. QUESTION: I have green kitchen curtains that are fading a little and I would like to dye them yellow. Should I bleach them white with Purex Liquid Bleach before I dye them?

ANSWER: For removing the color from your tinted curtains before redying these items, we would suggest the use of a retail color remover such as "Rit Color Remover" or "Tintex Color Remover" rather than the use of a hypochlorite bleach.

11. QUESTION: Can I use chlorine bleach on my rayon garments?

ANSWER: There are two types of rayon, viscose which can withstand hypochlorite bleach quite well and acetate which is, unfortunately, quite easily damaged. Be sure that the word "acetate" is not on the hang tag before bleaching a rayon garment.

12. QUESTION: Is it safe to use Purex Liquid Bleach on items containing elastic?

ANSWER: There should be no damage to elastic when laundered with Purex Liquid Bleach in the wash water if the use directions are carefully followed. Many, many thousands of homemakers have used Purex Liquid Bleach on garments containing elastic with completely satisfactory results.

13. QUESTION: How can I use Purex Liquid Bleach to keep my porcelain sink and tile drainboards bright?

ANSWER: We highly recommend the use of Purex Liquid Bleach for cleaning sinks, drainboards, kitchen tile, bathtubs, etc. For this application we suggest using a solution of one ounce of 1/8 cup of Purex Liquid Bleach for each quart of cold water. The solution should be applied to the surface with a cloth which has been previously moistened with cold water. Allow the Purex Liquid Bleach to remain in contact with the surface for only two minutes and then be sure to rinse thoroughly. This use of Purex Liquid Bleach will not be injurious to plumbing.

14. QUESTION: What about using Purex Liquid Bleach to help me keep my enameled and aluminum kitchen utensils shining?

ANSWER: We wish to assure you that Purex Liquid Bleach should in no way cause damage to your enamel or porcelain kitchen utensils.

If the enamel has accidentally been chipped or marred, there is a possibility that the bleach could cause the steel backing to rust in the spot where it is exposed, but if the surfaces of the articles are not chipped then we highly recommend the use of Purex Liquid Bleach as an excellent means of cleaning and sanitizing them. However, we DO NOT recommend the use of Purex Liquid Bleach on aluminum, iron, copper or stainless steel utensils since there is the possibility that a reaction may occur which would discolor the metal.

15. QUESTION: I like to soak my baby's diapers overnight in a bleach solution. Will this deodorize them until they are washed.

ANSWER: Allowing diapers to soak before washing in a mild solution of Purex Liquid Bleach will help to deodorize them if you use a solution of 1/8 cup of Purex Liquid Bleach to 2 gallons of cold water. We also recommend the procedure of adding Purex Liquid Bleach to the laundry suds as an excellent means of cleaning, sanitizing and deodorizing baby clothes and diapers. There should be no danger of the bleach causing irritation to the baby's delicate skin since all of the bleach will be thoroughly removed from the fabric during the course of the normal rinsing operation. For extremely stubborn stains which will not respond to regular laundering methods, we would recommend our procedure for stubborn stain removal as discussed in Question 7.

16. QUESTION: How can I disinfect my clothes and sanitize dishes when there is illness in the fmaily?

ANSWER: We suggest that you wash and rinse your china and glassware following your usual method of dishwashing. Prepare a sanitizing solution of 1 ounce or 1/8 cup of Purex Liquid Bleach for each two gallons of cold water and allow the dishes to stand in this solution for 2 minutes. DO NOT use this bleach solution on silverware since a chemical reaction may occur which would discolor the surface of the metal. To Disinfect Laundry: Thoroughly mix one cup Purex Liquid Bleach for each 16 gallons water. Add clothes. Soak 10 minutes, then add detergent and start the wash/rinse cycle. Rinse well. If cothes are already in machine, dilute the bleach with one quart water before using.

17. QUESTION: Will my sheets wear longer if I bleach them only every third or fourth time I wash them?

ANSWER: No, it's better to bleach regularly than allow soil to accumulate in your clothes and wear them out with hard rubbing or excessive agitation in the washer. Purex Liquid Bleach is so pure and gentle it's safe to bleach your clothes every time you wash them. Just follow directions on the label and Purex Liquid Bleach will not harm your linens or cottons. (Remember, using more bleach than specified on the label won't get your sheets any whiter!)

18. QUESTION: What is the best way to keep a toilet bowl free from stain and odor?

ANSWER: For this application we suggest that you pour 1/2 cup of Purex Liquid Bleach directly into the bowl and allow this to stand for 10 minutes or longer if desired. If necessary, you may use a brush to spread this Purex Liquid Bleach solution to the sides of the bowl above the water level. Be sure you rinse the brush thoroughly after use. This procedure cannot harm the bowl since it is made of solid porcelain.

19. QUESTION: Is it safe to use bleach in the water when I wash my kitchen stove and refrigerator?

ANSWER: Purex Liquid Bleach is an ideal product for brightening and deodorizing the enamel surfaces of kitchen stoves and refrigerators, both outside and inside. It is advisable to clean appliances according to manufacturer's instructions. Its use for this application should in no way cause harm to a good unbroken enamel surface. We suggest the addition of one ounce of 1/8 cup of Purex Liquid Bleach to each two gallons of your suds solution used to clean the enameled or porcelain surfaces. Rinse with clear water to remove the bleach and suds solution.

20. QUESTION: My china cups and saucers have become stained from coffee and tea. No amount of washing seems to improve them. Please advise.

ANSWER: Purex Liquid Bleach is an excellent means of removing tea and coffee stains from your cups. We would suggest that you wash these items following your usual dishwasing procedure and then immerse them for about 5 minutes in a Purex Liquid Bleach solution of 1 ounce or 1/8 cup of Purex Liquid Bleach for each quart of cold water. At the end of this time be sure to rinse the cups thoroughly.

21. QUESTION: Could Purex Liquid Bleach be used to purify drinking water as for example, when on a camping trip? What would be the best procedure to follow?

ANSWER: Purex Liquid Bleach is an excellent means of disinfecting drinking water. For this application we suggest that you add 1 drop of Purex Liquid Bleach to each gallon of water and allow this to stand 5 or 10 minutes before use. It is always advisable to consult local health authorities whenever there is any doubt as to the purity of your drinking water supply.

22. QUESTION: Someone told me that hot water will kill or neutralize the effect of bleach. Should it be used only in cold water?

ANSWER: Hot water will not reduce the effectiveness of Purex Liquid Bleach but will, in fact, increase its rate of action. However, it is not necessary to use an extremely hot solution to

achieve the desired bleaching results; normal washing temperatures are ideal for this purpose.

23. QUESTION: If I use bleach in my laundry will it tend to make my hands rough and sore?

ANSWER: The use of Purex Liquid Bleach should not cause any irritation or harm to your hands when laundering your clothes. It is always advisable, of course, to rinse your hands thoroughly after using the bleach solution. Many of our customers have discovered that a satisfactory method of removing the lingering chlorine odor from hands is to apply a small amount of lemon juice after thoroughly washing them with a good household soap.

24. QUESTION: I have wondered about using a bleach on stained or discolored plastic surfaces and objects and would like to know if Purex Liquid Bleach will injure the plastic or cause the colors to fade.

ANSWER: Many types of plastic can be safely treated with a Purex Liquid Bleach solution. However, because of the large variety on the market we would suggest that you test the bleach solution on some inconspicuous portion of the plastic object before treating the entire article. For this application we would recommend using a solution of 1 ounce or 1/8 cup of Purex Liquid Bleach for each quart of cold water. Apply this solution with a cloth which has been moistened with cold water. Allow the solution to remain in contact with the surface for two minutes and then rinse thoroughly.

25. QUESTION: What is the best way to get an ink stain out of my husband's white dress shirt?

ANSWER: For removing ink stains from bleachable fabrics we would suggest our directions for stubborn stain removal as discussed in Question 7. This method may not prove completely satisfactory, however, since many of the inks, especially the colored ones, have as a basic ingredient compounds containing iron. This type of ink will produce a stain that is almost impossible to remove using a hypochlorite bleach since the bleach will leave brown or yellow spots even after the other discoloration has been removed. This remaining stain is iron oxide which can possibly be removed by using some type of retail rust remover according to label directions.

26. QUESTION: I accidentally put a red sock in the washer with my white sheets and pillow cases and they all turned pink. Will Purex Liquid Bleach get them white again?

ANSWER: To remove the pink discoloration from your white sheets and pillow cases we would suggest the use of a retail color remover such as "Rit Color Remover" or "Tintex Color Remover" since either of these products would probably be more effective than a hypochlorite bleach for this application.

27. QUESTION: Some of my husband's white shirts have stains from rusty coathangers. Laundering doesn't seem to remove these stains. Would a bleach help?

ANSWER: We are sorry that we cannot recommend the use of Purex Liquid Bleach for removal of rust spots from your husband's shirts. These spots can possibly be removed, however, by using a retail rust remover according to label directions.

28. QUESTION: Our water supply is very rusty and often stains our sink and bathtub. Nothing I have used will remove the brown stain so I thought of Purex Liquid Bleach. Will a little Purex help?

ANSWER: To keep sinks, wash bowls, tubs, etc. bright and sparkling we recommend the use of Purex Liquid Bleach as explained in Question 13. However, in the case of the brown stains or rust spots, we would suggest the use of a retail rust remover such as the products "Zud" or "Delete".

29. QUESTION: I have several blood stained handkerchiefs and washing doesn't remove very much of the stain. Is there any way to remove the stains as these are expensive handkerchiefs?

ANSWER: For removing blood stains from white cotton fabrics we would recommend that you first soak the stained items in a cold salt water solution, rinse and then follow our stubborn stain removal procedure as explained in Question 7. As you know, a blood stain which has been allowed to set is extremely difficult to remove. Although Purex Liquid Bleach should to some extent lighten this discoloration, it is unlikely that the use of bleach will completely remove the blood stain.