

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

December 12, 2014

Rebecca Mannion Diversey, Inc. 8310 16th ST, MS 707 Sturtevant, WI 53177

Subject: PRIA Label Amendment – Add soft surface sanitization claims

Product Name: Divosan XY

EPA Registration Number: 70627-53 Application Date: May 22, 2014

Decision Number: 491511

Dear Ms. Mannion

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 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

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with FIFRA section 6. If you have any questions, please contact Zebora Johnson by phone at (703) 308-7080, or via email at johnson.zebora@epa.gov.

Sincerely,

Seiichi Murasaki

Acting Product Manager 33 Regulatory Management Branch I Antimicrobials Division (7510P) Office of Pesticide Programs

#### **DIVOSAN XY**

(Liquid) (Sanitizer)

For (Industrial) (&) (Institutional) Use

# ACCEPTED

12/12/2014

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 70627-53

ACTIVE INGREDIENTS:	
Peroxyacetic Acid	5.2%
Hydrogen Peroxide	
OTHER (INERT) INGREDIENTS:	
TOTAL:	

# KEEP OUT OF REACH OF CHILDREN DANGER

#### **FIRST AID**

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

# IN CASE OF EMERGENCY, CALL A POISON CONTROL CENTER OR DOCTOR FOR TREATMENT ADVICE. [Note to Reviewer: Working Emergency Number Inserted Here]

Have the product container or label with you when calling a Poison Control Center or doctor or going in for treatment.

Note to Physician: Probable mucosal damage may contraindicate gastric lavage.		
See additional precautionary statements on (back) (side) (left) (right) (panel) (below).		
Net Contents:	(Product of	)

(Note to Agency: Text appearing in parenthesis is done to show optional text.)

(See reference sheet (enclosed) for (a completed list of organisms) (additional (features) (claims) (directions for use)) (for this product).)

### (MARKETING FEATURES)

This product is for sanitizing of previously cleaned, food contact surfaces in: Dairies, Wineries, Breweries and Beverage Plants, Meat and Poultry Processing/Packaging Plants, Milk and Dairy Products Processing/Packing Plants, Seafood and Produce Processing/Packing Plants, Food Processing/Packing Equipment Surfaces, Egg Processing/Packing Equipment Surfaces, Eating Establishments.

This product is for sanitizing of previously cleaned, food contact surfaces such as: eating, drinking and food preparation utensils, countertops and food preparation surfaces, tableware, plastic, glass and metal bottles (rinse).

This product is for use as a coarse spray for surfaces to be sanitized or disinfected. It can also be used by immersion, mop, wipe, flood techniques or circulation techniques.

This product is for use in fogging applications to control spoilage organisms and/or bacteriophage that could be found in the air in food and beverage processing facilities.

This product is for use as an antimicrobial rinse to control beverage spoilage microorganisms.

This product is for use in the sanitization of ultra-filtration and reverse osmosis (RO) membranes and their associated distribution systems.

This product is used for treating (or microbial control in) closed and opened loop systems such as Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers, Cooling Canals, Pasteurizers, Tunnel Coolers and Warmers, and Closed Once Through Cooling Systems. This product is not intended for once-through or recirculating cooling tower systems.

This product is effective as a sanitizer when use-solution is prepared in water of up to 500 ppm hardness as CaCO<sub>3</sub>.

Food Contact Sanitization: When used as a food contact sanitizer in the presence of 500 ppm hard water, this product reduces the following bacteria by 99.999% with a 1 minute contact time on pre-cleaned, hard nonporous surfaces:

#### **Dilution Rate:**

1.0 fluid ounce to 5 gallons of water:

1.2 fluid ounces to 5 gallons of water:

1.6 fluid ounces to 5 gallons of water:

#### Bacteria:

Staphylococcus aureus, Escherichia coli, and Salmonella typhi

Listeria monocytogenes

Enterobacter sakazakii (ATCC 29544), Escherichia coli O26:H11 (ATCC BAA-1653), Escherichia coli 45:K-:H (ECL 1001), Escherichia coli O103:K:H8 (ATCC 23982), Escherichia coli O111:H8 (ATCC BAA-184), Escherichia coli O121:K-:H10 (ECL 39W), Escherichia coli O145:H48 (ATCC BAA-1652), Escherichia coli O157:H7 (ATCC 35150), Pseudomonas aeruginosa (ATCC 15442), Vibrio cholerae (ATCC 11623)

**Non-Food Contact Sanitization:** When used as a non-food contact sanitizer at a 1.6 fl. oz. of product per 5 gallons of water dilution prepared as follows:

Dilute 3.2 fl. oz. of Divosan XY per 5 gallons of water, then dilute 8 fl. oz. of foaming agent, Shureclean Plus per 1 gallon of water. Mix the use solution of Divosan XY with the use solution of Shureclean Plus at a 1:1 ratio. This provides 140 ppm PAA.

this product reduces the following bacteria by 99.9% with a 5 minute contact time on hard non-porous surfaces:

Enterobacter aerogenes (ATCC 13048), Escherichia coli O157:H7 (ATCC 35150), Listeria monocytogenes (ATCC 19117), Staphylococcus aureus (ATCC 6538)

This product is an effective one-step cleaner/disinfectant against: *Staphylococcus aureus, Salmonella enterica, Pseudomonas aeruginosa*, and Avian Influenza A H5N1. It may be used in general institutional environments to clean, disinfect, and deodorize hard, non-porous inanimate surfaces, such as: floors, walls, tables, chairs, countertops, garbage cans/bins, bathroom fixtures, sinks, shelves, racks, carts, exterior surfaces of refrigerators and coolers, and hard non-porous surfaces made of glazed tile, linoleum, glazed porcelain, vinyl, plastic (such as polypropylene and polyethylene), stainless steel or glass.

This product is for use in the disinfection of hard, non-porous surfaces in general institutional environments such as: Chemical Processing Facilities and Equipment, Pharmaceutical Facilities and Equipment, Industrial Facilities, Livestock Premises, Poultry Premises, Poultry Hatcheries, Trucks, Animal Housing Facilities, Zoos, Pet Animal Quarters, Veterinary Hospital/Clinics, Animal Life Science Labs, Pet Shops, Bathroom Premises.

#### **DIRECTIONS FOR USE:**

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

**NOTE:** FOR MECHANICAL OPERATIONS, prepared use-solutions may not be reused for sanitizing or disinfecting but may be reused for other purposes such as cleaning. FOR MANUAL OPERATIONS, fresh sanitizing or disinfecting solutions should be prepared at least daily or more often if the solution becomes diluted or soiled.

**To Prepare Food Contact Sanitizer Use Solution:** Unless otherwise directed, add concentrate according to the table by adding between 1.0-5.7 fl. oz. of product to 5 gallons of water:

fl. oz. of Concentrate	Gals. of Water	Organism to Control
1.0-5.7	5	Staphylococcus aureus, Escherichia coli, and Salmonella typhi
1.2-5.7	5	Listeria monocytogenes
1.6-5.7	5	Enterobacter sakazakii (ATCC 29544) Escherichia coli O26:H11 (ATCC BAA-1653) Escherichia coli 45:K-:H- (ECL 1001) Escherichia coli O103:K:H8 (ATCC 23982) Escherichia coli O111:H8 (ATCC BAA-184) Escherichia coli O121:K-:H10 (ECL 39W) Escherichia coli O145:H48 (ATCC BAA-1652) Escherichia coli O157:H7 (ATCC 35150) Pseudomonas aeruginosa (ATCC 15442) Vibrio cholerae (ATCC 11623)

If sanitizing at temperatures 5°C (40°F) or lower, use 1.7-5.7 fluid oz. of product to 5 gallons of water.

# Sanitizing Hard, Non-Porous Food Contact Surfaces and Equipment

- 1. Prior to sanitization, remove gross particulate matter with a warm water flush, then wash equipment with detergent or cleaning solution and follow with a potable water rinse.
- 2. Prepare the sanitizing use-solution by adding 1.0 to 5.7 fl. oz. of product to 5 gal. of water per the preparation table instructions.
- 3. Apply sanitizing solution by immersion, coarse spray, mop, wipe, flood techniques or circulation techniques as appropriate to the equipment or surface to be treated. Allow a contact time of at least 1 minute.
- 4. Allow surfaces to drain thoroughly and air dry before resuming operation. Do not rinse.

#### Sanitizing Eating, Drinking and Food Prep Utensils

- 1. Prior to sanitization, remove gross filth particles by a prescrape, preflush and, when necessary a presoak treatment.
- 2. Wash all items with a detergent.
- 3. Rinse thoroughly with potable water.
- 4. Prepare the sanitizing use-solution by adding 1.0 to 5.7 fl. oz. of product to 5 gal. of water per the preparation table instructions.
- 5. Immerse all items for at least 1 minute or for a contact time as specified by the local governing sanitizing code.
- 6. Place all sanitized items on a rack or drainboard to drain adequately. Air dry if items will not be reused immediately. Do not rinse.

#### **Sanitizing Tableware**

For sanitizing tableware in low to ambient temperature warewashing machines, inject a use-solution of product (1.0 to 5.7 fl. oz. per 5 gal. of water) into the final rinse water. Allow treated surfaces to air dry.

## **Elevated Temperature Sanitizing**

At a temperature of 120°F, this product is an effective sanitizer for food contact surfaces at a concentration of 1 fl. oz. of product per 8 gal. of water against *Staphylococcus aureus* and *Escherichia coli*, and against *Listeria monocytogenes* at a concentration of 1 fl. oz. of product per 5 gal. of water. Prior to sanitization, clean and rinse thoroughly all equipment. All surfaces should be exposed to the sanitizing solution for at least 1 minute. Allow equipment to drain thoroughly and air dry. Do not rinse.

### **Final Sanitizing Bottle Rinse**

Use this product as a final sanitizing rinse for plastic, glass or metal returnable and non-returnable bottles/cans.

- 1. Prior to sanitization, wash bottles with detergent or cleaning solution and rinse with potable water.
- 2. Then rinse bottles/cans with a use-solution prepared by mixing 1.0 to 5.7 fl. oz. of product with 5 gal. of water
- 3. Allow bottles/cans to drain thoroughly and air dry. Do not rinse.

#### Sanitization of Conveyors for Meat, Poultry Seafood, Fruits, and Vegetables

For use in the static or continuous washing, rinsing, and sanitizing of conveyor equipment, peelers, collators, slicers, saws, etc.

- 1. During processing or interruptions in operations, apply this product by preparing a use-solution by adding 1.0 to to 5.7 fl. oz. of product to 5 gal. of water per the preparation table instructions.
- 2. Apply the sanitizer solution to the return portion of the conveyor or to the equipment using a coarse spray, foam or other means of wetting the surfaces. Control the volume of solution so as to permit maximum drainage and to prevent puddles. The conveyor may still be damp when food contact occurs. Treat for at least 1 minute.

#### Batch Sanitization for Ultra Filtration and Reverse Osmosis (RO) Membranes

This product might not totally eliminate all vegetative microorganisms in reverse osmosis membranes and their associated piping systems due to their construction and/or assembly, but it can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. Check with equipment manufacturer for membrane compatibility with Divosan XY. **NOTE:** Not for use on kidney dialysis membranes, associated systems and any other medical devices of this type.

- 1. Clean the membrane or other parts of the system with an appropriate cleaner to remove biological or organic fouling.
- 2. Flush the system with RO permeate or similar quality water.
- 3. If necessary, circulate an appropriate acid cleaner to remove mineral deposits.
- 4. Flush the system with RO permeate or similar quality water.
- 5. Prepare use-solution by adding 1.7-9.1 fl. oz. of product per 5 gallons of water. This will provide 150-800 ppm peroxyacetic acid.
- 6. Fill the system to be sanitized with the Divosan XY solution and allow to reach a minimum temperature of 20°C.
- 7. Recirculate the Divosan XY solution for 10-15 minutes.
- 8. Allow membrane elements to soak in the Divosan XY solution for 20 minutes.
- 9. Drain the Divosan XY solution from the system and rinse with RO permeate, or similar quality water, until the residual peroxyacetic acid is below 3 ppm.

#### **Batch Sanitization of Piping Systems Associated with RO Membranes**

- 1. Isolate incompatible equipment from piping systems. This includes activated carbon filters and ion exchange equipment. Turn power off to ultraviolet light units.
- 2. Estimate total volume of water contained in the system (tanks, rinse stations and piping). Prepare use-solution by adding 1.7-9.1 fl. oz. of product per 5 gallons of water. This will provide 150-800 ppm peroxyacetic acid.
- 3. Recirculate the Divosan XY solution for a minimum of 4 hours. Process usage valves should be opened and closed to expose internals to the Divosan XY solution.
- 4. Drain the Divosan XY solution from the system and rinse with RO permeate, or similar quality water, until the residual peroxyacetic acid is below 3 ppm.

# FOGGING FOR CONTROL OF SPOILAGE ORGANISMS IN THE AIR AT FOOD AND BEVERAGE PROCESSING FACILITIES:

Use this product in a fogging device for control of spoilage organisms and/or bacteriophage that could be found in the air in food and beverage processing facilities.

- 1. Prior to fogging, remove or carefully protect all food products and packaging materials.
- 2. Ensure room is properly ventilated to prevent migration of vapors to adjacent areas. Vacate all personnel from the room during fogging. Post entry signs notifying employees that fogging is in process to prevent accidental entry. Plan the fogging operation so that sufficient product is available to properly treat the room without refilling the fogger. Use a remotely controlled or time delayed fogging device and leave area before activating the fogger.
- 3. For control of spoilage organisms and/or bacteriophage that could be found in the air in food and beverage processing facilities, thoroughly fog areas using one quart per 1000 cu. ft. of room area with a 0.30% (4.0 fluid oz. per 10 gallons of water) solution. NEVER enter the room during fogging unless wearing appropriate eye, skin and respiratory protection.
- 4. Treated areas should not be entered without suitable protective equipment for a minimum period of 2 hours after fogging. Ensure there is no strong odor characteristic of acetic acid (vinegar), before having personnel return to work area. Do not reenter the fogged area until proper venting decreases the hydrogen peroxide concentration in the air to less than 0.5 ppm.
- 5. Prior to re-using equipment and resuming operations, rinse all surfaces with potable water and follow with standard surface sanitization procedures. Always empty and rinse spray/fog equipment with potable water after use as well.

**Note:** The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances must a room be entered by anyone during fogging or within two hours of the completion of fogging (assuming a minimum of 4 air exchanges (ACH) per hour in the area being fogged, a minimum of 4 air exchanges (ACH) per hour in the facility after fogging). If the building must be entered, then the individuals entering the area must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long sleeves and long pants.

#### **Surface Disinfection**

(Note to reviewer: For labels that list semi-critical devices as defined by FDA.)

(This product is not to be used as a terminal sterilant/high level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the blood stream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high level disinfection.)

Prepare the disinfecting use-solution by adding 3.2 fl. oz. of product to 5 gallons of potable water. Apply the disinfecting use-solution by wiping, mopping, or as coarse spray. For heavily soiled areas, a pre-cleaning is required. Allow to soak for at 10 minutes, then drain treated surfaces. Applications involving treatment of food contact surfaces require a sterile or potable water rinse following disinfection.

# Disinfection and Deodorizing of Animal Housing Facilities, Poultry Premises, Coops, Trucks and Crates

- 1. Remove all animals and feeds from areas being treated.
- 2. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes, and other facilities occupied or traversed by animals.
- 3. Empty or cover all troughs, racks and other feeding and watering appliances.
- 4. Thoroughly clean all surfaces with soap and detergent and rinse with water.
- 5. Prepare a disinfecting use-solution by adding 3.2 fl. oz. of product to 5 gallons of water. Apply use-solution to floors, walls, cages and other washable hard, non-porous environmental surfaces. For smaller surfaces, use a trigger spray bottle to spray all surfaces with solution until wet. To disinfect, all surfaces must remain wet for 10 minutes.
- 6. Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels and scrapers used for litter and manure.
- 7. Before starting the treatment ensure that the work area is well ventilated. Do not house animals or reemploy equipment until product has dried.
- 8. For disinfection of feed racks, troughs, automatic feeders, fountains and watering appliances scrub with use-solution, let stand 10 minutes. Then thoroughly scrub all treated surfaces with soap or detergent and rinse with potable water before reuse.

#### **Poultry Hatchery Disinfection**

- 1. Remove remaining eggs and chicks, poultry and feeds from premises, trucks, coops and crates.
- 2. Remove all litter and droppings from floors, walls and surfaces and other hatching-related debris occupied or traversed by poultry/chicks.
- 3. Empty all troughs, racks and other feeding and watering appliances.
- 4. Thoroughly wash all surfaces, with a recommended detergent or cleaning solution and then rinse with a potable water.
- 5. Prepare the disinfecting use-solution by adding 3.2 fl. oz. of product to 5 gallons of water. Apply the disinfecting solution with a mop, cloth, brush or coarse spray, keeping surfaces wet for 10 minutes.
- 6. Before starting the treatment ensure that the work area is well ventilated. Do not house poultry/eggs or employ equipment until product has dried.
- 7. Thoroughly scrub feed racks, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

# **To Sanitize Non-Food Contact Surfaces:**

- 1. Prepare Use-Solution as follows:
  - Dilute 3.2 fl. oz. of Divosan XY per 5 gallons of water.
  - Dilute 8 fl. oz. of foaming agent, Shureclean Plus, per 1 gallon of water.
  - Mix the use solution of Divosan XY with use solution of Shureclean Plus at a 1:1 ratio. This provides 140 ppm PAA.
- 2. Pre-clean heavily soiled hard non-porous surfaces.
- 3. Apply Use Solution until thoroughly wet.
- 4. Let stand for 5 minutes.
- 5. Wipe surfaces (and let air dry).
- 6. Not for use on food contact surfaces or on food preparation areas.

#### Antimicrobial Rinse of Pre-Cleaned or New Returnable or Non-Returnable Containers

Use this product to reduce the following non-pathogenic beverage spoilage organisms: Aspergillus versicolor, Byssochlamys fulva, Pediococcus damnosus, Lactobacillus buchneri, and Saccharomyces cerevisiae.

- 1. Prepare the antimicrobial rinse solution by adding 7.0 to 30 fl. oz. of product to 5 gallons of water.
- 2. Apply antimicrobial rinse at a temperature of 40°C to 60°C, with a contact time of at least 7 seconds.
- 3. Allow containers to drain thoroughly, and then rinse with sterile or potable water.

# Treatment of Heat Transfer Systems (Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers, Cooling Canals, Pasteurizers, Tunnel Coolers and Warmers, and Closed Once Through Cooling Systems)

This product is not intended for once-through or recirculating cooling tower systems.

Severely fouled systems should be cleaned before adding the product. Refer to the system operational manual for directions to clean severely fouled systems. The product should be added directly to the system and not mixed with other chemicals or additives. Other chemicals should be added separately. Contamination with other chemicals could result in product decomposition. Add product at a point in the system where uniform mixing and even distribution will occur.

**Intermittent Feed Method:** When the system is noticeably fouled apply 12-60 fl. oz. (5-26 ppm peroxyacetic acid) of product per 1000 gallons of water in the system. Repeat until control is achieved. When microbial control is evident, add 42 fl. oz. (17 ppm peroxyacetic acid) of product per 1000 gallons of water in the system every day, or as needed, to maintain control. The daily dose rate could vary depending upon the severity of the biofouling.

**Continuous Feed Method:** Initial Dose - When the system is just noticeably fouled, apply 12-60 fl. oz. (5-26 ppm peroxyacetic acid) of product per 1000 gallons of water in the system. When microbial control is achieved, start adding product continuously at a rate of 42 fl. oz. per 1000 gallons of water (provide 17 ppm of peroxyacetic acid and 44 ppm of hydrogen peroxide). Then reduce the rate of addition to a level sufficient to maintain control. The dose rate may have to be adjusted to account for the losses due to blowdown and evaporation. Add the 4.2 fl. oz. of product for every 100 gallons of make-up water.

# **Booster for Alkaline Detergents to Clean Food Processing Equipment**

Divosan XY is an effective oxygen bleach cleaning booster for use with alkaline detergents. For cleaning applications as a detergent booster, use 0.5-2.5% v/v total product (0.64 - 3.2 fl. oz. per gallon of detergent use solution) to aid in the removal of organic soils. All hard non-porous food contact surfaces treated with this boosted detergent must be rinsed thoroughly with a potable water rinse followed by sanitizing with an approved food contact surface sanitizer.

#### **Booster for Acid Detergents to Clean Food Processing Equipment**

Divosan XY is an effective oxygen bleach cleaning booster for use with acidic detergents. For cleaning applications as a detergent booster, use 0.5-2.5% v/v total product (0.64 - 3.2 fl. oz. per gallon of detergent use solution) to aid in the removal of organic soils. All hard non-porous food contact surfaces treated with this boosted detergent must be rinsed thoroughly with a potable water rinse followed by sanitizing with an approved food contact surface sanitizer.

#### STORAGE AND DISPOSAL

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

#### **PESTICIDE STORAGE**

Keep container closed. Store in a cool, clean area away from all contaminants, especially dirt, caustic, reducing agents and metals. Contamination and impurities will reduce shelf life and can induce decomposition. In case of decomposition, isolate container, douse container with cool water and dilute with large volumes of water. Keep storage container closed at all time when not in use. Keep container out of direct sunlight. To maintain product quality store at temperatures below 86°F. Do not store on wooden pallets.

#### 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 DISPOSAL** (Note to reviewer – One or more of the following paragraphs for Container Disposal will be selected, depending on packaging type:)

(NONREFILLABLE SEALED CONTAINERS: Note to reviewer: Several of our packaging options are sealed containers or bottles designed to reduce worker exposure to the concentrate. None of these can be triple rinsed because they are closed, sonically welded, sealed containers. The following text will be used on these sealed container types:)

Nonrefillable container. Do not reuse or refill this container. Wrap empty container and put in trash.

(SMALL NONREFILLABLE CONTAINERS: Note to reviewer: The following text will be used on rigid, nonrefillable containers small enough to shake (5 gallons or smaller)):

Nonrefillable container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a 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. Offer container for recycling, if available.

(LARGE NONREFILLABLE CONTAINERS: Note to reviewer: One of the following paragraphs will be used on labels for rigid, nonrefillable containers too large to shake (larger than 5 gallons)):

Nonrefillable container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for at least 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer container for reconditioning, if appropriate.

OR

Nonrefillable container. Clean container promptly after emptying. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate for later use or disposal. Insert pressure-rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Offer for reconditioning, if appropriate.

(REFILLABLE CONTAINERS: Note to reviewer: One of the following paragraphs will be used on labels for refillable containers:)

Refillable container. Refill this container with (this product or brand name) pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

OR

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container prior to final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### PROCEDURE FOR LEAK OR SPILL

Stop leak if this can be done without risk. Shut off ignition sources; no flames, smoking, flares or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undiluted material should not enter confined spaces.

#### **ENVIRONMENTAL HAZARDS** (for containers of 5 gallons or 50 lbs. or more)

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 agency 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.

# PRECAUTIONARY STATEMENTS HAZARD TO HUMANS AND DOMESTIC ANIMALS

**DANGER: Corrosive.** Causes irreversible eye damage and skin burns. May be fatal if absorbed through the skin or inhaled. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Do not breathe vapor or spray mist. Wear chemical splash-proof goggles or face shield, rubber gloves and protective clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. When fogging or spraying, wear a mask or pesticide respirator jointly approved by the Mine Safety and Health Administration and the National Institute for Occupational Safety and Health.

#### PHYSICAL OR CHEMICAL HAZARDS

Strong oxidizing agent. Mix only with water. This product is not combustible; however, at temperatures exceeding 156°F decomposition occurs releasing oxygen. The oxygen released could initiate or promote combustion of other materials.

EPA Reg. No. 70627-53 EPA Est. No. (Lot code letters indicate establishment number.)

MSDS No. XXXXXXX

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# REFERENCE SHEET

# **DIVOSAN XY**

#### **DIRECTIONS FOR USE:**

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

**NOTE:** FOR MECHANICAL OPERATIONS, prepared use-solutions may not be reused for sanitizing or disinfecting but may be reused for other purposes such as cleaning. FOR MANUAL OPERATIONS, fresh sanitizing or disinfecting solutions should be prepared at least daily or more often if the solution becomes diluted or soiled.

**To Prepare Food Contact Sanitizer Use Solution:** Unless otherwise directed, add concentrate according to the table by adding between 1.0-5.7 fl. oz. of product to 5 gallons of water:

fl. oz. of Concentrate	Gals. of Water	Organism to Control
1.0-5.7	5	Staphylococcus aureus, Escherichia coli, and Salmonella typhi
1.2-5.7	5	Listeria monocytogenes
1.6-5.7	5	Enterobacter sakazakii (ATCC 29544) Escherichia coli O26:H11 (ATCC BAA-1653) Escherichia coli 45:K::H- (ECL 1001) Escherichia coli O103:K:H8 (ATCC 23982) Escherichia coli O111:H8 (ATCC BAA-184) Escherichia coli O121:K:-H10 (ECL 39W) Escherichia coli O145:H48 (ATCC BAA-1652) Escherichia coli O157:H7 (ATCC 35150) Pseudomonas aeruginosa (ATCC 15442) Vibrio cholerae (ATCC 11623)

If sanitizing at temperatures 5°C (40°F) or lower, use 1.7-5.7 fluid oz. of product to 5 gallons of water.

### Sanitizing Hard, Non-Porous Food Contact Surfaces and Equipment

- 1. Prior to sanitization, remove gross particulate matter with a warm water flush, then wash equipment with detergent or cleaning solution and follow with a potable water rinse.
- 2. Prepare the sanitizing use-solution by adding 1.0 to 5.7 fl. oz. of product to 5 gal. of water per the preparation table instructions.
- 3. Apply sanitizing solution by immersion, coarse spray, mop, wipe, flood techniques or circulation techniques as appropriate to the equipment or surface to be treated. Allow a contact time of at least 1 minute.
- 4. Allow surfaces to drain thoroughly and air dry before resuming operation. Do not rinse.

### Sanitizing Eating, Drinking and Food Prep Utensils

- 1. Prior to sanitization, remove gross filth particles by a prescrape, preflush and, when necessary a presoak treatment.
- 2. Wash all items with a detergent.
- 3. Rinse thoroughly with potable water.
- 4. Prepare the sanitizing use-solution by adding 1.0 to 5.7 fl. oz. of product to 5 gal. of water per the preparation table instructions.
- 5. Immerse all items for at least 1 minute or for a contact time as specified by the local governing sanitizing code.
- 6. Place all sanitized items on a rack or drainboard to drain adequately. Air dry if items will not be reused immediately. Do not rinse.

#### **Sanitizing Tableware**

For sanitizing tableware in low to ambient temperature warewashing machines, inject a use-solution of product (1.0 to 5.7 fl. oz. per 5 gal. of water) into the final rinse water. Allow treated surfaces to air dry.

## **Elevated Temperature Sanitizing**

At a temperature of 120°F, this product is an effective sanitizer for food contact surfaces at a concentration of 1 fl. oz. of product per 8 gal. of water against *Staphylococcus aureus* and *Escherichia coli*, and against *Listeria monocytogenes* at a concentration of 1 fl. oz. of product per 5 gal. of water. Prior to sanitization, clean and rinse thoroughly all equipment. All surfaces should be exposed to the sanitizing solution for at least 1 minute. Allow equipment to drain thoroughly and air dry. Do not rinse.

### **Final Sanitizing Bottle Rinse**

Use this product as a final sanitizing rinse for plastic, glass or metal returnable and non-returnable bottles/cans.

- 1. Prior to sanitization, wash bottles with detergent or cleaning solution and rinse with potable water.
- 2. Then rinse bottles/cans with a use-solution prepared by mixing 1.0 to 5.7 fl. oz. of product with 5 gal. of water
- 3. Allow bottles/cans to drain thoroughly and air dry. Do not rinse.

#### Sanitization of Conveyors for Meat, Poultry Seafood, Fruits, and Vegetables

For use in the static or continuous washing, rinsing, and sanitizing of conveyor equipment, peelers, collators, slicers, saws, etc.

- 1. During processing or interruptions in operations, apply this product by preparing a use-solution by adding 1.0 to to 5.7 fl. oz. of product to 5 gal. of water per the preparation table instructions.
- 2. Apply the sanitizer solution to the return portion of the conveyor or to the equipment using a coarse spray, foam or other means of wetting the surfaces. Control the volume of solution so as to permit maximum drainage and to prevent puddles. The conveyor may still be damp when food contact occurs. Treat for at least 1 minute.

# **Batch Sanitization for Ultra Filtration and Reverse Osmosis (RO) Membranes**

This product might not totally eliminate all vegetative microorganisms in reverse osmosis membranes and their associated piping systems due to their construction and/or assembly, but it can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. Check with equipment manufacturer for membrane compatibility with Divosan XY. **NOTE:** Not for use on kidney dialysis membranes, associated systems and any other medical devices of this type.

- 1. Clean the membrane or other parts of the system with an appropriate cleaner to remove biological or organic fouling.
- 2. Flush the system with RO permeate or similar quality water.
- 3. If necessary, circulate an appropriate acid cleaner to remove mineral deposits.
- 4. Flush the system with RO permeate or similar quality water.
- 5. Prepare use-solution by adding 1.7-9.1 fl. oz. of product per 5 gallons of water. This will provide 150-800 ppm peroxyacetic acid.
- 6. Fill the system to be sanitized with the Divosan XY solution and allow to reach a minimum temperature of 20°C.
- 7. Recirculate the Divosan XY solution for 10-15 minutes.
- 8. Allow membrane elements to soak in the Divosan XY solution for 20 minutes.
- 9. Drain the Divosan XY solution from the system and rinse with RO permeate, or similar quality water, until the residual peroxyacetic acid is below 3 ppm.

#### **Batch Sanitization of Piping Systems Associated with RO Membranes**

- 1. Isolate incompatible equipment from piping systems. This includes activated carbon filters and ion exchange equipment. Turn power off to ultraviolet light units.
- 2. Estimate total volume of water contained in the system (tanks, rinse stations and piping). Prepare use-solution by adding 1.7-9.1 fl. oz. of product per 5 gallons of water. This will provide 150-800 ppm peroxyacetic acid.
- 3. Recirculate the Divosan XY solution for a minimum of 4 hours. Process usage valves should be opened and closed to expose internals to the Divosan XY solution.
- 4. Drain the Divosan XY solution from the system and rinse with RO permeate, or similar quality water, until the residual peroxyacetic acid is below 3 ppm.

# FOGGING FOR CONTROL OF SPOILAGE ORGANISMS IN THE AIR AT FOOD AND BEVERAGE PROCESSING FACILITIES:

Use this product in a fogging device for control of spoilage organisms and/or bacteriophage that could be found in the air in food and beverage processing facilities.

- 1. Prior to fogging, remove or carefully protect all food products and packaging materials.
- 2. Ensure room is properly ventilated to prevent migration of vapors to adjacent areas. Vacate all personnel from the room during fogging. Post entry signs notifying employees that fogging is in process to prevent accidental entry. Plan the fogging operation so that sufficient product is available to properly treat the room without refilling the fogger. Use a remotely controlled or time delayed fogging device and leave area before activating the fogger.
- 3. For control of spoilage organisms and/or bacteriophage that could be found in the air in food and beverage processing facilities, thoroughly fog areas using one quart per 1000 cu. ft. of room area with a 0.30% (4.0 fluid oz. per 10 gallons of water) solution. NEVER enter the room during fogging unless wearing appropriate eye, skin and respiratory protection.
- 4. Treated areas should not be entered without suitable protective equipment for a minimum period of 2 hours after fogging. Ensure there is no strong odor characteristic of acetic acid (vinegar), before having personnel return to work area. Do not reenter the fogged area until proper venting decreases the hydrogen peroxide concentration in the air to less than 0.5 ppm.
- 5. Prior to re-using equipment and resuming operations, rinse all surfaces with potable water and follow with standard surface sanitization procedures. Always empty and rinse spray/fog equipment with potable water after use as well.

**Note:** The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances must a room be entered by anyone during fogging or within two hours of the completion of fogging (assuming a minimum of 4 air exchanges (ACH) per hour in the area being fogged, a minimum of 4 air exchanges (ACH) per hour in the facility after fogging). If the building must be entered, then the individuals entering the area must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long sleeves and long pants.

#### **Surface Disinfection**

(Note to reviewer: For labels that list semi-critical devices as defined by FDA.)

(This product is not to be used as a terminal sterilant/high level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the blood stream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high level disinfection.)

Prepare the disinfecting use-solution by adding 3.2 fl. oz. of product to 5 gallons of potable water. Apply the disinfecting use-solution by wiping, mopping, or as coarse spray. For heavily soiled areas, a pre-cleaning is required. Allow to soak for at 10 minutes, then drain treated surfaces. Applications involving treatment of food contact surfaces require a sterile or potable water rinse following disinfection.

# Disinfection and Deodorizing of Animal Housing Facilities, Poultry Premises, Coops, Trucks and Crates

- 1. Remove all animals and feeds from areas being treated.
- 2. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes, and other facilities occupied or traversed by animals.
- 3. Empty or cover all troughs, racks and other feeding and watering appliances.
- 4. Thoroughly clean all surfaces with soap and detergent and rinse with water.
- 5. Prepare a disinfecting use-solution by adding 3.2 fl. oz. of product to 5 gallons of water. Apply use-solution to floors, walls, cages and other washable hard, non-porous environmental surfaces. For smaller surfaces, use a trigger spray bottle to spray all surfaces with solution until wet. To disinfect, all surfaces must remain wet for 10 minutes.
- 6. Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels and scrapers used for litter and manure.
- 7. Before starting the treatment ensure that the work area is well ventilated. Do not house animals or reemploy equipment until product has dried.
- 8. For disinfection of feed racks, troughs, automatic feeders, fountains and watering appliances scrub with use-solution, let stand 10 minutes. Then thoroughly scrub all treated surfaces with soap or detergent and rinse with potable water before reuse.

#### **Poultry Hatchery Disinfection**

- 1. Remove remaining eggs and chicks, poultry and feeds from premises, trucks, coops and crates.
- 2. Remove all litter and droppings from floors, walls and surfaces and other hatching-related debris occupied or traversed by poultry/chicks.
- 3. Empty all troughs, racks and other feeding and watering appliances.
- 4. Thoroughly wash all surfaces, with a recommended detergent or cleaning solution and then rinse with a potable water.
- 5. Prepare the disinfecting use-solution by adding 3.2 fl. oz. of product to 5 gallons of water. Apply the disinfecting solution with a mop, cloth, brush or coarse spray, keeping surfaces wet for 10 minutes.
- 6. Before starting the treatment ensure that the work area is well ventilated. Do not house poultry/eggs or employ equipment until product has dried.
- 7. Thoroughly scrub feed racks, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

# **To Sanitize Non-Food Contact Surfaces:**

- 1. Prepare Use-Solution as follows:
  - Dilute 3.2 fl. oz. of Divosan XY per 5 gallons of water.
  - Dilute 8 fl. oz. of foaming agent, Shureclean Plus, per 1 gallon of water.
  - Mix the use solution of Divosan XY with use solution of Shureclean Plus at a 1:1 ratio. This provides 140 ppm PAA.
- 2. Pre-clean heavily soiled hard non-porous surfaces.
- 3. Apply Use Solution until thoroughly wet.
- 4. Let stand for 5 minutes.
- 5. Wipe surfaces (and let air dry).
- 6. Not for use on food contact surfaces or on food preparation areas.

#### Antimicrobial Rinse of Pre-Cleaned or New Returnable or Non-Returnable Containers

Use this product to reduce the following non-pathogenic beverage spoilage organisms: Aspergillus versicolor, Byssochlamys fulva, Pediococcus damnosus, Lactobacillus buchneri, and Saccharomyces cerevisiae.

- 1. Prepare the antimicrobial rinse solution by adding 7.0 to 30 fl. oz. of product to 5 gallons of water.
- 2. Apply antimicrobial rinse at a temperature of 40°C to 60°C, with a contact time of at least 7 seconds.
- 3. Allow containers to drain thoroughly, and then rinse with sterile or potable water.

# Treatment of Heat Transfer Systems (Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers, Cooling Canals, Pasteurizers, Tunnel Coolers and Warmers, and Closed Once Through Cooling Systems)

This product is not intended for once-through or recirculating cooling tower systems.

Severely fouled systems should be cleaned before adding the product. Refer to the system operational manual for directions to clean severely fouled systems. The product should be added directly to the system and not mixed with other chemicals or additives. Other chemicals should be added separately. Contamination with other chemicals could result in product decomposition. Add product at a point in the system where uniform mixing and even distribution will occur.

**Intermittent Feed Method:** When the system is noticeably fouled apply 12-60 fl. oz. (5-26 ppm peroxyacetic acid) of product per 1000 gallons of water in the system. Repeat until control is achieved. When microbial control is evident, add 42 fl. oz. (17 ppm peroxyacetic acid) of product per 1000 gallons of water in the system every day, or as needed, to maintain control. The daily dose rate could vary depending upon the severity of the biofouling.

**Continuous Feed Method:** Initial Dose - When the system is just noticeably fouled, apply 12-60 fl. oz. (5-26 ppm peroxyacetic acid) of product per 1000 gallons of water in the system. When microbial control is achieved, start adding product continuously at a rate of 42 fl. oz. per 1000 gallons of water (provide 17 ppm of peroxyacetic acid and 44 ppm of hydrogen peroxide). Then reduce the rate of addition to a level sufficient to maintain control. The dose rate may have to be adjusted to account for the losses due to blowdown and evaporation. Add the 4.2 fl. oz. of product for every 100 gallons of make-up water.

#### **Booster for Alkaline Detergents to Clean Food Processing Equipment**

Divosan XY is an effective oxygen bleach cleaning booster for use with alkaline detergents. For cleaning applications as a detergent booster, use 0.5-2.5% v/v total product (0.64 - 3.2 fl. oz. per gallon of detergent use solution) to aid in the removal of organic soils. All hard non-porous food contact surfaces treated with this boosted detergent must be rinsed thoroughly with a potable water rinse followed by sanitizing with an approved food contact surface sanitizer.

#### Booster for Acid Detergents to Clean Food Processing Equipment

Divosan XY is an effective oxygen bleach cleaning booster for use with acidic detergents. For cleaning applications as a detergent booster, use 0.5-2.5% v/v total product (0.64 - 3.2 fl. oz. per gallon of detergent use solution) to aid in the removal of organic soils. All hard non-porous food contact surfaces treated with this boosted detergent must be rinsed thoroughly with a potable water rinse followed by sanitizing with an approved food contact surface sanitizer.

Read the label affixed to the container for this product (product brand name) before applying.

Use of this product (product brand name) according to this label is subject to the use precautions and limitations imposed by the label affixed to the container for this product (product brand name).

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