

ECOLAB®

Oxy-15

Water Additive for Microbial Growth Control on Fresh Cut, Post Harvest, and Further Processed Fruits and Vegetables in transport, storage and processing

ACCEPTED

DEC 17 1998

EPA Reg. No. 1677-164
EPA Est. 60156-IL-1

Under the Federal Insecticide, Fungicide, and Rodenticide Act, this product is registered for use as a:

Pesticide, registered under EPA Reg. No. 1677-164

ACTIVE INGREDIENTS:

Peroxyacetic acid.....15.0%

Hydrogen peroxide.....11.0%

INERT INGREDIENTS:.....74.0%

TOTAL 100.0%

**KEEP OUT OF REACH OF CHILDREN
DANGER**

PRECAUTIONARY STATEMENTS - HAZARDS TO HUMAN AND DOMESTIC ANIMALS

CORROSIVE: Causes severe eye damage and skin burns. Harmful or fatal if swallowed. Do not get in eyes, on skin, or on clothing. Wear chemical goggles, rubber gloves, and protective clothing if handling concentrate. Wash thoroughly with soap and water after handling. Remove any contaminated clothing and wash before re-use.

STATEMENT OF PRACTICAL TREATMENT

IF ON SKIN: Immediately wash with plenty of soap and water. Get medical attention.

IF IN EYES: Flush immediately with cold water. Remove contact lenses. Hold eyelids open and flush with water for 15 minutes. Get medical attention immediately.

IF SWALLOWED: DO NOT induce vomiting. Immediately drink large quantities of water. Avoid alcohol. Never give anything by mouth to an unconscious person. CALL A POISON CONTROL CENTER OR PHYSICIAN IMMEDIATELY.

FOR EMERGENCY MEDICAL INFORMATION CALL TOLL FREE: 1-800-328-0026

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PHYSICAL AND CHEMICAL HAZARDS:

Strong oxidizing agent. Corrosive. Do not use in concentrated form. Mix only with water according to the label instructions. Never bring concentrate in contact with other sanitizers, cleaners, or organic substances.

ENVIRONMENTAL HAZARDS: This product is toxic to birds, fish, and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**FOR COMMERCIAL OR INSTITUTIONAL USE ONLY
STRONG OXIDIZING AGENT**

Manufactured by:

ECOLAB®

FOOD & BEVERAGE DIVISION
Ecolab Inc.
370 Wabasha Street
St. Paul, MN 55102

U.S. Patent No. 5,409,713

Other Patents Pending

Oxy-15 is recommended for use in the control of microbial growth in the process water and on the surface of fresh cut and post-harvest fruits and vegetables as well as processed fruits and vegetables. The product also reduces biofilm formation on the processing equipment of fruits and vegetables. Oxy-15 may also be used as a wash to control growth of microorganisms which cause decay on fruits or vegetables. Examples of process water streams are flumes, chill tanks and wash water systems.

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

FOR TREATMENT OF PROCESS WATER STREAMS:

A. Batch systems with no makeup water added.

1. Fill vessel containing fruits or vegetables with known amount of water.
2. Ensure that water is recirculating in vessel.
3. Add Oxy-15 to no more than 533 ppm (wt/wt) total product (80 ppm residual peroxyacetic acid) in use solution. This can be accomplished by initially adding 53.3 grams (47.8 mls) Oxy-15 per 100 liters of water, or 1.0 fluid ounces Oxy-15 per 16.4 gallons of water.
4. Contact time of 45 seconds minimum is recommended.

B. Continuous systems with constant addition of makeup water:

Initial dose: (this brings the recirculating process water up to an initial properly dosed level of Oxy-15)

1. Ensure that system is recirculating with known amount of water in vessels and piping.
2. Add initial dose of Oxy-15 to no more 533 ppm (wt/wt) total product (80 ppm residual peroxyacetic acid) in use solution. This can be accomplished by adding 53.3 grams (47.8 mls) Oxy-15 per 100 liters of water, or 1.0 fluid ounces Oxy-15 per 16.4 gallons of water.
3. Contact time of 45 seconds minimum is recommended.

Continuous dose: (ensures steady state dosing of Oxy-15 is maintained). Meter no more than 533 ppm (wt/wt) Oxy-15 total product (80 ppm residual peroxyacetic acid) in proportion to the fresh makeup water added to the system. For example, makeup water flow rates of 16.4 gallons per minute would require a maximum of 1 fluid ounce (29.6 mls) per minute of Oxy-15. Makeup water flow rates of 100 liters per minute would require a maximum of 53.3 grams (47.8 mls) per minute of Oxy-15. Contact time of 45 seconds minimum is recommended.

Fruits and vegetables which are to be further processed must be rinsed with potable water.

FOR TREATMENT OF FRUIT AND VEGETABLE SURFACES

Mix Oxy-15 with water either batchwise or continuously to no more than 533 ppm (wt/wt) total product (80 ppm residual peroxyacetic acid) in use solution. This can be accomplished by initially adding 53.3 grams (47.8 mls) Oxy-15 per 100 liters of water, or 1.0 fluid ounces Oxy-15 per 16.4 gallons of water. The fruits and vegetables can be sprayed or submerged in the resulting solution for a minimum contact time of 45 seconds, followed by adequate draining. Fruits and vegetables which are to be further processed must be rinsed with potable water.

STORAGE AND DISPOSAL: DO NOT CONTAMINATE WATER OR FOOD BY STORAGE OR DISPOSAL

STORAGE: Product should be kept cool and in vented container to avoid any explosion hazard.

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: [50 gallon drum] Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. [300 gallon tote] Verify that the tote is empty. Do not rinse or clean. Seal tote and contact Ecolab for return.

Oxy-15 can be used on the following types of fresh, post harvest and further processed fruits and vegetables
Vegetables

- Root and tuber vegetables: Carrot, potato, radish, rutabaga, sweet potato, yam, sugar beet
- Leaves of root and tuber vegetables: Turnip greens, and sugar beet
- Bulb vegetables: Onion (dry bulb and green), leek, garlic, shallot
- Leafy vegetables: Lettuce (head and leaf), celery, fennel, endive, escarole, parsley, radicchio, rhubarb, spinach
- Brassica leafy vegetables: Broccoli, Brussel sprouts, cabbage, cauliflower, mustard greens
- Legumes [succulent or dried], bean (green, kidney, lima, mung, navy, pinto, snap, wax), pea (chickpea, lentil, dwarf, garden, English, field, edible pea pod) and soybean
- Fruiting vegetables: Pepper (bell, pimento, hot, sweet), tomato, tomatillo, eggplant
- Cucurbits: Cucumber, melon (cantaloupe, crenshaw melon, honeydew, honey ball melon, mango melon, muskmelon, pineapple melon, watermelon), summer squash, pumpkins, winter squash

Fruits

- Citrus fruits: Sweet and sour orange, lemon, lime, tangelo, tangerine, mandarin, citrus citron, kumquats, grapefruit
- Pome fruits: Apples and pears
- Stone fruits: Sour or sweet cherry, peach, nectarine, plum, prune
- Small fruits and berries: Blackberries, blueberries, red and black raspberries

Tree nuts: Almond, Brazil, filbert, cashew, pecan, walnut (black & English), macadamia, chestnut

Cereal grains: Corn, barley, oats, rice, wheat, triticale, wild rice

Herbs and Spices: Basil, chives, coriander, dill, lemongrass, marjoram, sage, savory, tarragon, thyme

Miscellaneous: Asparagus, avocado, artichoke, banana, cranberry, fig, grape, kiwifruit, mango, mushroom, okra, peanut, persimmon, pineapple, raisins, strawberry, water chestnut, watercress

NET CONTENTS: 50 U.S. Gals. (189 liters) or 300 U.S. Gals. (tote)