## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAY 1 1 1998

Ann M. Oxford Ecolab Inc. 370 N. Wabasha Street St. Paul, MN 55102

RE: KX-6078

EPA Reg. No. 1677-184

Your Amendment Dated 6/10/97

The amendment referred to above, submitted in connection with registration under section 3 (c) (7) (A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable provided that you comply with the item listed below. The subject of this amendment is for the use of this product on raw agricultural commodities. The added new use for raw agricultural commodities is allowed by the publication of two EPA final rules (Federal Register - 5/6/98) granting an exemption from the requirement of a tolerance for the two active ingredients, hydrogen peroxide and peroxyacetic acid, and by authorization on the date of this letter, and subsequent publication of the EPA final rule granting an exemption from the requirement of a tolerance for the inert ingredient 1-hydroxyethylidene-1, 1-diphosphonic acid.

Submit/cite all data required for registration and/or reregistration of your product under FIFRA section 3 (c) (5) and section 4 when the Agency requires all registrants of similar products to submit such data.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6 (e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the approved label is enclosed for your records.

If you have any questions about the comments in this letter, please feel free to contact Tony Kish at 703-308-9443.

Marshall Swindell,
Product Manager Team 33,
Regulatory Management Branch I

CONCURRENCES Antimicrobials Division (7510W)

SURNAME

DATE

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Sincerely

# ACCEPTED with COMMENTS in EPA Letter Dated:

**KX-6078** 

MAY I 1 1998
Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide,
registered under EPA Reg. No.

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

1677-184

#### **ACTIVE INGREDIENTS:**

Peroxyacetic acid	14.9%
Hydrogen peroxide	11,4%
INERT INGREDIENTS:.	73.7%
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: Do not discharge effluent containing this product into lakes, steams, 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 Broad or Regional Office of the EPA.

FOR COMMERCIAL OR INSTITUTIONAL USE ONLY STRONG OXIDIZING AGENT

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

### Other Patents Pending

KX-6078 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. KX-6078 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,
  - Add KX-6078 to no more than 533 ppm (wtwt) total product (80 ppm residual peroxyacetic acid) in use solution. This can be accomplished by initially adding 53,3 grams (47.8 mls) KX-6078 per 100 liters of water, or 1.0 fluid ounces KX-6078 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 KX-6078).

- 1. Ensure that system is recirculating with known amount of water in vessels and piping.
- Add initial dose of KX-6078 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) KX-6078 per 100 liters of water, or 1.0 fluid ounces KX-6078 per 16.4
  gallons of water.
- 3. Contact time of 45 seconds minimum is recommended.

Continuous dose: (ensures steady state dosing of KX-6078 is maintained). Meter no more than 533 ppm (w/wt) KX-6078 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 m/s) per minute of KX-6078. Makeup water flow rates of 100 liters per minute would require a maximum of 53.3 grams (47.8 m/s) per minute of KX-6078. 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 KX-6078 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) KX-6078 per 100 liters of water, or 1,0 fluid ounces KX-6078 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: 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.

**NET CONTENTS:** 

5<sup>^</sup> U.S. Gals. (189 liters)

Manufactured by:



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

KX-6078 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, rulabaga, 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, lennel, endive, escarole, parsley, radicchio, rhubarb, spinach
- Brassica leafy vegetables: Broccoli, Brussel sprouts, cabbage, cautiflower, 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;
- Fruiling vegelables: Pepper (bell, pimento, hot, sweet), tomato, tomatillo, eggplant
- Cucurbits: Cucumber, melon (cantaloupe, crenshaw melon, honeydew, honey ball melon, mango melon, muskmelon, pineappte 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, blueborries, red and black raspberries

<u>Tree nuts</u>: Almond, Brazil, filbert, cashew, pecan, walnut (black & English), macadamia, chestnut <u>Cereal grains</u>: Corn, barley, oats, rice, wheat, triticale, wild

<u>Cereal grains</u>: Corn, barley, oats, rice, wheat, triticale, wilk 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, strawberry, water chestnut, watercress

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