

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

PM34

10466-27

8-4-97

1-7

AUG 4 1997

Olivia Laird
Laird's Regulatory Consultants Inc.
501 South Lincoln Ave.
Sterling, VA 20164-2024

Attention: Olivia Laird, Agent
Thomson Research Associates

Subject: Ultra Fresh NM
EPA Registration Number 10466-27
Your Submission Dated May 14, 1997

This is in response to your request to amend the registration of the subject product to include additional uses, such as pigments, presscake, dispersions, cellulosic sponges, synthetic, inks and adhesives, Environmental Hazard statements, Technical Data Sheets, Pesticide Disposal Section and revised labeling.

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable subject to the comments listed below. A stamped copy is enclosed for your records. One copy of the finished labeling must be submitted prior to releasing the product for shipment.

Include the following statements as the second paragraph in your use direction section:

"Do not use in food grade adhesives or ink"

Products containing Ultra-Fresh NM" may not make claims of antimicrobial activity other than protection of the article itself against growth of bacteria and mold in the treated article. If growth of bacterial and mold in the treated article would lead to unpleasant odors and discoloration of the treated article, then such a claim may be made.

If you have any questions, please contact LaVerne Dobbins at (703) 308-6378.

Sincerely,



Portia M. Jenkins
Acting Product Manager (34)
Regulatory Management Branch II

CONCURRENTLY Microbiologicals Division (7510W)

SYMBOL	7510W	7510W					
SURNAME	Dobbs	W...					
DATE	8/4/97	8/4/97					

Ultra-Fresh® NM

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide,
registered under EPA Reg. No. 10466-27

DIRECTIONS FOR USE

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

Ultra-Fresh® NM is an additive designed for application to textiles at 1-4% on weight of goods to inhibit the growth of odor-causing bacteria on these surfaces.

The duration of *Ultra-Fresh*® NM's bacteriostatic activity has been experimentally demonstrated on washable treated fabrics subjected to 50 conventional launderings.

Ultra-Fresh® NM is also used as a laundry additive and can be used to treat carpets, latexes, air filters, and synthetic, cellulosic sponges, pigment presscakes, dispersions, inks, and adhesives.

Please consult the respective Product Information Sheet for application parameters:

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with 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.

E.P.A. Reg. No. 10466-27
E.P.A. Est. 34310-RI-01

BACTERIOSTAT

ACTIVE INGREDIENTS

5-chloro-2-(2,4-dichlorophenoxy)phenol.....3.0 %

INERT INGREDIENTS.....97.0 %

KEEP OUT OF REACH OF CHILDREN CAUTION

PRECAUTIONARY STATEMENT:

Hazard to humans and domestic animals. Harmful if swallowed. Avoid contact with eyes, skin or clothing.

STATEMENT OF PRACTICAL TREATMENT:

In case of contact immediately flush eyes or skin with plenty of water for at least 15 minutes and call a physician. Wash skin with soap and plenty of water. Remove and wash contaminated clothing before reuse. If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately.

NOTE TO PHYSICIAN: Probable mucosal damage may contra-indicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

Manufactured for: Thomson Research Associates
95 King Street East, Suite 100
Toronto, Ontario
M5C 1G4

*add the product
Do not use in
hard adhesives or ink*

Ultra-Fresh® is a registered trademark of Kroy International Inc.

STORAGE AND DISPOSAL

Prohibitions: Do not store or transport in unlined metal containers. Do not contaminate with strong oxidizing or reducing agents. Do not contaminate water, food or feed by storage or disposal or cleaning of equipment.

Pesticide Disposal: Pesticides are acutely hazardous. Improper disposal of excess pesticide 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
Metal Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by other approved state and local procedures.

Plastic containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

General: Consult Federal, state, or local disposal authorities for approved alternative procedures.

Net Contents: U.S. Gallons

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THOMSON RESEARCH ASSOCIATES

A division of KROY CHEMICALS LTD.

95 King Street E., Suite 100, Toronto, Ontario, Canada M5C 1G4 Tel: (416) 955-1881 Fax: (416) 955-1887

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TECHNICAL DATA SHEET

Ultra-Fresh[®] NM

E.P.A. Registration No. 10466-27

For use in the United States of America

Product Description

Ultra-Fresh[®] NM is an aqueous emulsion designed to confer durable bacteriostatic properties to cotton, wool and synthetic textile fabrics such as fabrics used in apparel, domestics and household goods by inhibiting the growth of odour-causing bacteria.

Ultra-Fresh[®] NM can be applied from the pad, by exhaustion either alone or together with softeners, and can be co-applied with dyestuffs. This product, when applied according to recommendations, will last through at least 25 conventional launderings.

Ultra-Fresh[®] NM is also used to protect pigment press cakes and dispersions and/or inks made from press cakes from the growth of bacteria. *Ultra-Fresh*[®] NM, in pigments and inks, should be applied at levels ranging from 0.30% to 5.0% (w/w).

Ultra-Fresh[®] NM is also used as a disinfectant-sanitizer for hard surfaces, as a laundry and detergent additive and as a professional carpet and upholstery cleaning additive. *Ultra-Fresh*[®] NM is also used as a laundry additive and can be used to treat carpets, latexes, air filters and synthetic and cellulosic sponges.

Physical Properties

Boiling Point	102.8°C
Freezing Point	-2.4°C
Specific Gravity at 20°C	0.990
Ionic Nature	Nonionic
Viscosity at 20°C	21.8 cps

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in EPA Letter Dated:
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Bacteriostatic/Fungistatic Activity

The following table lists the minimum concentrations of *Ultra-Fresh*[®] NM, dispersed in aqueous media, required to inhibit growth of various microorganisms in test tube cultures. This table is intended to provide an indication of the broad spectrum activity of *Ultra-Fresh*[®] NM in aqueous solution and is neither intended as a claim for recommended use concentrations under practical conditions, nor as a list of microorganisms involved in specific end-use conditions.

Organism	Minimum Concentration (ppm of product)
Gram Positive Bacteria	
<i>Bacillus cereus</i>	21
<i>Bacillus mycoides</i>	32
<i>Bacillus subtilis</i>	14
<i>Brevibacterium ammoniagenes</i>	19
<i>Corynebacterium pseudodiphtheriticum</i>	2
<i>Enterococcus faecalis</i>	37

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Steri-Septic[®]

Ultra-Fresh® NM TDS

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<i>Micrococcus luteus</i>	16
<i>Staphylococcus aureus</i>	1
<i>Streptococcus pyogenes</i>	1

Organism Minimum Concentration (ppm of product)

Gram Negative Bacteria

<i>Acinetobacter calcoaceticus</i>	4
<i>Enterobacter aerogenes</i>	16
<i>Escherichia coli</i>	13
<i>Klebsiella pneumoniae</i>	1
<i>Proteus vulgaris</i>	11
<i>Providencia rettgeri</i>	190
<i>Salmonella typhimurium</i>	12

Fungus

<i>Trichophyton mentagrophytes</i>	75
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Toxicity

Acute Oral LD ₅₀ (rats)	- 15.2 mL/kg
Skin Irritation (rabbits)	- Draize method score = 0
Eye Irritation (rabbits)	- Draize method score = 0

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APPLICATION PROCEDURES

1. Textiles

Ultra-Fresh® NM will inhibit the growth of microorganisms on textile surfaces.

These include hosiery, nurses' uniforms, laboratory coats, intimate apparel, surgical and examination gowns, scrub suits, wall coverings, upholstery fabric, drapery fabric, blankets, cubicle curtains, mattress pads and covers, sheets and pillow covers, mattress filling materials, pillow filling fibres and air filters.

An application of 2.0 to 5.0% based on fabric weight and durability requirements is recommended. Ultra-Fresh® NM can be applied from the pad bath, and liquor temperature has no effect on fabric pick-up of the product.

Exhaustion should be done for 10-15 minutes at temperatures ranging from 100-120F (40-49C).

No changes are required in existing procedures, e.g. for softener application, when adding Ultra-Fresh® NM.

Ultra-Fresh® NM can be added to the dyestuffs and auxiliaries used in all normal textile dyeing, and will confer durable bacteriostatic activity to the finished, dyed goods with no changes in dyeing procedure being required.



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Ultra-Fresh[®] NM TDS

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Under the Federal Insecticide,
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2. Laundry Additive

Use three (3) fluid ounces (90 g) of *Ultra-Fresh*[®] NM for each two hundred (200) pounds or 90 kg of dry laundry weight. *Ultra-Fresh*[®] NM should be added with the softener in the FINAL RINSE cycle. **IMPORTANT:** Refer to the laundry machine manual for load capacity and adjust usage to load size.

3. Hard Surfaces

Ultra-Fresh[®] NM effectively resists the growth and destructive action of a wide variety of bacteria on hard surfaces between shampooings and other cleaning processes.

Mix two (2) ounces (60g) of *Ultra-Fresh*[®] NM in four (4) gallons of water (15L) and use this solution to disinfect and sanitize hard surfaces, floors, walls, animal quarters and kennels.

4. Pigment Presscakes, dispersions, inks

Add 0.30% to 5.0% *Ultra-Fresh*[®] NM, with thorough mixing, to an appropriate stage in manufacturing to confer resistance to bacterial growth in pigment presscakes, dispersions and inks.

5. Polymeric Systems

Foams, latex and polyurethane gloves are also preserved by incorporating *Ultra-Fresh*[®] NM into their polymeric matrices. Application levels of 2.0 - 5.0% based on dry polymer weight is recommended.

6. Carpet Cleaning

Dilute one (1) fluid ounce (30g) of *Ultra-Fresh*[®] NM in one (1) gallon (3.8L) of cold water in a portable sprayer. This volume of solution is used to treat 300 square feet of carpet surface.

Carpets thus treated will resist the growth and destructive action of a wide variety of bacteria.

7. Synthetic & Cellulosic Sponges

Ultra-Fresh[®] NM should be used at 1.5 - 3.0% on the weight of goods (o.w.g.). For additional antifungal protection, *Ultra-Fresh*[®] DM-50 can be added at the rate of 0.15 - 0.3% o.w.g.

PRECAUTIONS

Ultra-Fresh[®] NM should be handled with care and common sense that should be accorded to all biologically active chemicals. In case of contact, remove and launder contaminated clothing before reuse. Consult Material Safety Data Sheet for more information.

NOTICE

The technical information and suggestions for use made herein are based on TRA's research and experience and are believed to be reliable, but such information and suggestions do not constitute a warranty, and no patent liability can be assumed. Since TRA has no control over the conditions under which this product is transported, stored, handled, used or applied, it is TRA's intent that its liability on any basis be limited to the price of the product used.

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Ultra-Fresh® NM

PRODUCT INFORMATION SHEET

BACTERIOSTATIC AGENT FOR PIGMENT PRESSCAKES, DISPERSIONS, INKS

E.P.A. Reg No. 10466-27

E.P.A. Est No 34310-RI-01

Ultra-Fresh® NM is an aqueous based antibacterial agent that can be added to pigment presscakes, dispersions and inks to prevent these materials from the deleterious effects of bacterial contamination. Bacteria readily multiply in fluid media such as pigment dispersions and inks, where an abundance of nutrients and free water provide ideal conditions for the proliferation of these micro-organisms. Contaminated materials may be physically altered by the presence of high numbers of bacteria and malodors may be a great problem in the saleability of the products.

Ultra-Fresh® NM should be added to pigment presscakes or to the dispersions and/or inks made from the presscakes at levels ranging between 0.30% and 5.0% (w/w).

In pigment presscakes, the active ingredient in *Ultra-Fresh*® NM readily adheres to the pigment particles and can therefore be carried into the dispersions and/or inks made from the presscake material.

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MAY 1 1997

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The information and data contained herein are based on information we believe reliable. You should thoroughly test any application and independently conclude satisfactory performance before commercialization. Suggestions of uses should not be taken as inducements to infringe any particular patent.

*Ultra-Fresh**
*Trade Marks

Steri-Septic®

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Ultra-Fresh[®] NM PRODUCT INFORMATION SHEET BACTERIOSTATIC AGENT FOR SYNTHETIC & CELLULOSIC SPONGES

E.P.A. Reg No. 10466-27

E.P.A. Est No 34310-RI-01

Ultra-Fresh[®] NM is an aqueous based antibacterial agent that can be added during the manufacturing of cellulosic as well as synthetic sponges to prevent these materials from the deleterious effects of bacterial contamination. Bacteria readily multiply in sponges where an abundance of nutrients and free water provide ideal conditions for the proliferation of these micro-organisms. Contaminated materials may be physically altered by the presence of high numbers of bacteria and malodors may be a great problem in the saleability of the products.

Ultra-Fresh[®] NM should be added to sponges at levels ranging from 1.5% and 3.0% on the weight of goods.

If additional antifungal properties are required please refer to the *Ultra-Fresh*[®] DM-50 Product Information Sheet on Sponges for further details on co-application.

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