

Ultrafresh AF-25

BACTERIOSTATIC AND FUNGISTATIC PRESERVATIVE

PRECAUTIONARY STATEMENT

Hazards to humans and domestic animals

Irritant. Causes severe eye damage and skin burns. Harmful if swallowed or inhaled. Do not get in eyes, on skin or clothing. Wear protective clothing (goggles or face shield, rubber gloves) when handling. Avoid breathing vapor or mist. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Environmental Hazards

This product is toxic to fish. Do not apply directly to water or wet lands. Do not contaminate water by cleaning of equipment or disposal of wastes.

STORAGE & DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. If plastic to not reuse, empty container.

Do not spray mixture or clean water that cannot be used. Follow tag to label instructions must be displayed. For handling, to apply. U.S. Fed. state or local authorities.

ACTIVE INGREDIENT

O-thallinone	
2-n-Octyl-4-isothiazolin-3-one	25.0%
INERT INGREDIENTS	75.0%
TOTAL	100.0%

KEEP OUT REACH OF CHILDREN

DANGER

ONLY FOR SALE TO, USE, AND STORAGE BY SERVICE PERSONS AND INDUSTRIAL USERS.

STATEMENT OF PRACTICAL TREATMENT

In case of contact, immediately flush eyes 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 re use. If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician. If swallowed, dilute by giving water. Call a physician. Never give anything by mouth to an unconscious person.

MANUFACTURED FOR
THOMSON RESEARCH ASSOCIATES
51 SHAW STREET, TORONTO
ONTARIO, CANADA, M6P 2W3

EPA Est. 141101001

EPA Reg. No. 10466-32

Net Contents

US Gallons

STORAGE & DISPOSAL

Triple rinse (or equivalent) all containers and, for metal containers, offer for recycling or reconditioning (for plastic containers dispose in an incinerator) or dispose in landfill approved for pesticide containers or bury in a safe place. Consult federal, state or local disposal authorities for approved alternative procedures.

DIRECTIONS FOR USE:

It is a violation of Federal law to use this product in a manner inconsistent with its labelling. For use as a bacteriostatic and fungistatic preservative finish for textiles in the presence of moisture, to protect paints, latex-, gelatin-, and starch-based adhesives in the can and in those products to which such emulsions and adhesives are applied from bacterial and fungal degradation, and for the protection of adhesive films against fungal growth. ULTRA FRESH AF-25 is to be used as directed in the accompanying Technical Data & Product Information sheets.

CORRO

7000-27
EPA EST. 141101001 AVAILABLE

9538-RO

Ultrafresh AF-25

BACTERIOSTATIC AND FUNGISTATIC PRESERVATIVE

ACTIVE INGREDIENT

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2-n-Octyl-4-isothiazolin-3-one.....	25.0%
INERT INGREDIENTS.....	75.0%
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MANUFACTURED FOR
THOMSON RESEARCH ASSOCIATES
53 SHAW STREET, TORONTO
ONTARIO, CANADA, M6P 2W3

EPA Est 34310-R101

EPA Reg No 10466-12

Net Contents

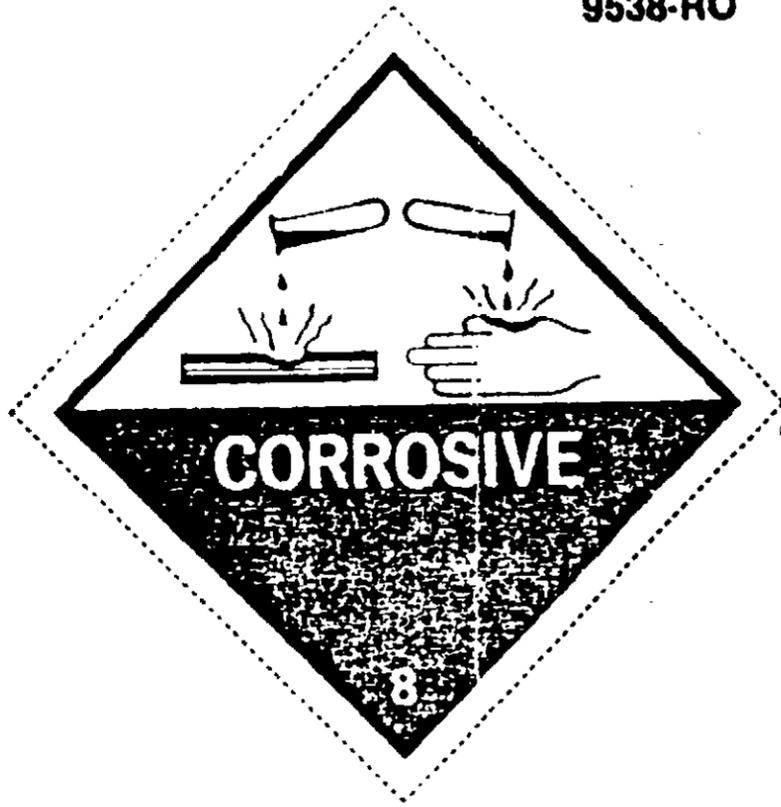
US Gallons

STORAGE & DISPOSAL

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DOT Proper Shipping Name
CORROSIVE LIQUID, N.O.S. UN 1760

(2-n-Octyl-4-isothiazolin-3-one)

In event of emergency:

CALL TOLL FREE: 800-424-9330 (CHEMTREC)

MADE IN U.S.A.

BEST DOCUMENT AVAILABLE

THOMSON RESEARCH ASSOCIATES

53 Shaw Street, Toronto, Ontario M6J 2W3
Tel: (416) 366-8954 Telex: 065-22053

PRODUCT INFORMATION SHEET ULTRA-FRESH AF-25

E.P.A. Registration No. 10466 -32

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

BACTERIOSTATIC AND FUNGISTATIC AGENT FOR PAINTS

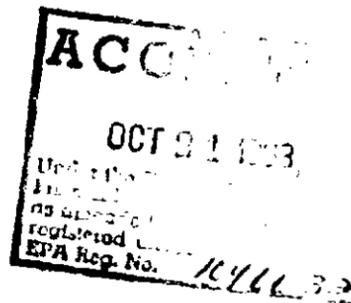
Bacteriostatic and Fungistatic Activity in Latex and PVA Paints

ULTRA-FRESH AF-25 treatment protects latex and PVA paints in the can and when spread as films from bacterial degradation and mold and mildew growth. Microbial contamination of paints may result in odor problems, discoloration and deterioration. ULTRA-FRESH AF-25 treatment in the paints inhibits the growth of microorganisms to aid in the control of these effects.

Bacteriostatic and fungistatic action is exhibited on contact in the presence of moisture.

Primary Use

To provide preservation for latex & PVA paints against a wide variety of bacteria and fungi.



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.

BEST DOCUMENT AVAILABLE



Trade Mark
Moulded Deposit

UltraFresh

A division of WOOD UNSHRINKABLE WOOL LTD.

THOMSON RESEARCH ASSOCIATES INC.

53 Shaw Street Toronto, Ontario M6J 2W5
Te 416 596-8954 Telex 065-22053

TECHNICAL DATA SHEET

ULTRA-FRESH AF-25

10466-32

Bacteriostatic-Fungistatic Liquid Preservative
E.P.A. Registration No. 10466- 32
E.P.A. Establishment No. 34310-RI-01

PRODUCT DESCRIPTION

ULTRA-FRESH AF-25 is a clear pale amber liquid used for rendering fabrics and water-based emulsion resistant to attack by microorganisms.

PHYSICAL PROPERTIES (These do not constitute specifications)

Appearance:	Clear amber liquid
Active Ingredient:	25% 2-n-Octyl-4-isothiazolin-3-one
Solvent Carrier:	Propylene glycol
Weight per Gallon:	8.6 lb.
Viscosity:	40 cps (Brookfield #1 spindle at 60 rpm, 25°C.)
Flash Point:	> 200°F (Pennsky-Martens Closed Tester)
Solubility:	The maximum solubility of the active ingredient in water is 800 ppm (0.08% on a weight basis), a level adequate for the preparation of completely soluble fabric treatment solutions. To prepare concentrates of ULTRA-FRESH AF-25, add propylene glycol to assure homogeneity. Concentrates may be then diluted in water to prepare a fabric treatment solution containing 5.0 to 10.0 ppm of active ingredient.

STABILITY

ULTRA-FRESH AF-25 as supplied appears to be stable indefinitely at room temperature. More dilute solutions in propylene glycol and aqueous treatment solutions are also considered completely stable. The material is not stable in the presence of ammonia, primary and secondary amines, or salts of these compounds.

BEST

AVAILABLE



The Most
Valuable Decision

UltraFrest

TOXICITY

The acute toxicity characteristics of ULTRA-FRESH AF-25 are:

- A. Acute oral toxicity (LD₅₀) in rats = 2740 mg/Kg
- B. Acute dermal toxicity (LD₅₀) on rabbits = < 1.25 ml/Kg (abraded skin),
> 5.00 ml/Kg (unabraded skin)

EYE IRRITATION

ULTRA-FRESH AF-25 as supplied is strongly irritating when applied to the eyes of rabbits, even when the eyes are washed 2 seconds after application. In eyes that were not washed, the effects persisted beyond 14 days.

SKIN IRRITATION

ULTRA-FRESH AF-25 as supplied is a primary skin irritant when tested according to the standard procedure of the Federal Hazardous Substances Act.

Patch tests were run on 93 human volunteers to monitor possible primary irritation and sensitization caused by contact of skin with fabrics treated with ULTRA-FRESH AF-25. The type of test was the repeated insult patch test. Fabrics had been treated with 50 or 150 ppm active ingredient based on the weight of substrate. Patches were applied 24 hours per day 3 days per week for 3 weeks (9 exposures). After a rest period of 2 weeks, a fresh patch was applied for 24 hours, and the sites were reexamined 24 and 72 hours after removing the fabric.

No clinically significant evidence for primary or cumulative irritation and contact sensitization reactions was observed on any subject.

ACUTE INHALATION

Exposure of rats to a nominal concentration of 7.18 mg ULTRA-FRESH AF-25 as supplied per liter of air produced no immediate or subsequent signs of toxicity. Exposure of 20 rats to the unformulated active ingredient at 4 mg/liter resulted in 11 dead.

HANDLING PRECAUTIONS

ULTRA-FRESH AF-25 as supplied causes severe eye and skin irritation and may be harmful if inhaled or swallowed. Therefore, rigorous precautions should be taken to avoid all personal contact with it including contamination of clothing or inhalation of the vapor or mist. Wear goggles and rubber gloves. Keep containers closed when not in use. Use with adequate ventilation. Do not take internally. Wash thoroughly after handling. Remove contaminated clothing immediately and launder before rewearing.

FIRST AID

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and call a physician. Wash skin with soap and plenty of water. Remove and launder contaminated clothing. If the material is swallowed, induce vomiting immediately by giving two glasses of water to drink and sticking a finger down the throat; call in a physician promptly. Never give anything by mouth to an unconscious person.

If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call in a physician.

BIOLOGICAL PERFORMANCE

Relatively low concentrations of ULTRA-FRESH AF-25 inhibit the growth of a wide variety of fungi, as Table 1 indicates.

The information given in this table is based on the present state of our knowledge, but any conclusions and recommendations are made without liability on our part. Buyers and users should make their own assessment of our products under their own conditions and for their own requirements.

ULTRA-FRESH AF-25

TABLE 1

BIOLOGICAL ACTIVITY OF ULTRA-FRESH AF-25 BY SERIAL DILUTION TESTS

<u>Test Fungus</u>	<u>Minimum Inhibiting Concentration in ppm of Active Ingredient</u>
Alternaria dianthicola (11782)	1
Aspergillus niger (9642)	8
Aspergillus oryzae (10196-QM #1278)	2
Aspergillus repens (9294)	2
Candida albicans, yeast (11651)	2
Chaetomium globosum (6205)	4
Cladosporium resinae (11274)	0.5
Mucor rouxii	8
Penicillium funiculosum (9644)	1
Phoma glomerata (6735)	1 or less
Phoma pigmentivora (12569)	2
Pullularia pullulans (9348)	0.3
Rhizopus stolonifer (10404)	4
Rhodotorula rubra, yeast (9449)	4
Saccharomyces cerevisiae, yeast (2601)	1
<u>Test Bacteria</u>	
<u>Klebsiella pneumoniae</u>	22.5
<u>Staphylococcus aureus</u>	18.7

DIRECTIONS FOR USE

The application levels given below are representative of those found necessary in practice. For each specific use, a trial run is recommended in order to determine the best application level and method of addition for the particular product being treated.

1. Fabrics

ULTRA-FRESH AF-25 can be padded on to fabrics from either an aqueous or solvent dispersion. Sufficient ULTRA-FRESH AF-25 should be added to the pad bath to give a fabric pick-up of 0.075 to 0.125 w/w.

2. Water-Base Emulsions/Adhesives

Water-base adhesives and related emulsion systems can be rendered resistant to biologically induced instability and degradation by the addition of ULTRA-FRESH AF-25. An application level of 0.05% w/w based on total emulsion weight is recommended. ULTRA-FRESH AF-25 should be treated as one of the components and added prior to mixing. In the case of hot-melt adhesives the temperature should not exceed 200°C. The in-can and in-use protection conferred by ULTRA-FRESH AF-25 will last indefinitely in the undiluted adhesive or emulsion.

3. Polymer Systems

Polymeric materials such as vinyl can be rendered resistant to the growth of mildew by the incorporation of ULTRA-FRESH AF-25. Add 0.05% to 0.125% by weight of ULTRA-FRESH AF-25 to the resin mix. The exact amount required for a specific usage can be readily determined by means of a preliminary trial.