

PM 31

64881-2

12-18-98

1078

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

AEGIS Environmental Management, Inc.  
3106 Swede Avenue  
Midland, OH 48642-3843

DEC 18 1998

Subject: Dow Corning 5700 Antimicrobial Agent  
EPA Registration No. 64881-1

Dow Corning 5772 Antimicrobial Agent  
EPA Registration No. 64881-2

Sylgard Antimicrobial Treatment  
EPA Registration No. 64881-3

Dow Corning 5772 Antimicrobial Agent MUP  
EPA Registration No. 64881-5

Notification Per PR Notice 98-10  
Your Notification Dated: 11/11/98

Attention: Mr. Hal Locker,  
President

This letter acknowledges receipt of your notification to update the Environmental Hazards Statement and add supplemental labeling submitted under the provisions of FIFRA sec. 3(c)(9). Based on a review of the submitted materials, the notification is acceptable and apart of the records for this file.

However, the end of the first sentence in the "Environmental Hazards" should be revised to "fish and aquatic invertebrates" instead of "aquatic organisms."

According to the records for these products, the last accepted label was stamped on September 11, 1992. The following comments are label recommendations that need to be addressed. (These are general comments that apply to the above products.)

CONCURRENCES

SYMBOL	1570C						
SURNAME	Campbell						
DATE	12/17/98						

EPA Form 1320-1A (1/90)

Printed on Recycled Paper


OFFICIAL FILE COPY

Label Recommendations:

1. Under the "Directions for Use" section, the following statements need to be added. (Excluding EPA Registration No. 64881-5)
  - a. This product has been registered as a microbiostatic agent for materials preservation only; neither this product, not articles treated with this product, may state or imply any public health claims.
  - b. Articles or substances treated with this product will be exempt from FIFRA regulation pursuant to 40 CFR 152.25(a) only if the intended use for incorporating this material into the treated article or substance is for protection of the article or substance itself.
  
2. "Storage and Disposal" Revisions for all the submissions
  - a. According to the Label Manual 2<sup>nd</sup> Edition, The statement, "Do not contaminate water, food, or feed by storage and disposal", should appear immediately under the "Storage and Disposal" heading.
  - b. Under storage, the 2<sup>nd</sup> sentence should be revised to state, "Store in original, tightly closed container in an area inaccessible to children and away from food or feed."
  - c. The heading, "Container Disposal", should precede the container disposal instructions.

If you have any questions regarding this letter, please contact Jacqueline Campbell at (703) 308-6416.

Sincerely,



Velma Noble  
Product Manager 31  
Regulatory Management Branch I  
Antimicrobials Divisions (7510C)



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number 64881-2	2. EPA Product Manager V. Nobel	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) AEM 5772 Antimicrobial	PM # 31	
5. Name and Address of Applicant (Include ZIP Code) AEGIS Environmental Management, Inc. 3106 Swede Avenue Midland, MI 48642-3843  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II**

<input type="checkbox"/> Amendment - Explain below. <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input type="checkbox"/> Other - Explain below.
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**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)  
 See attached

**Section - III**

1. Material This Product Will Be Packaged In:					
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Label accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

**Section - IV**

1. Contact Person (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Hal A. Locker	Title President	Telephone No. (Include Area Code) 517-832-8180
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received  (Stamp)
2. Signature 	3. Title President	
5. Typed Name Hal A. Locker	5. Date 11/11/98	

4028

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504C)  
U.S. Environmental Protection Agency  
401 M Street S.W.  
Washington, D.C. 20460-0001

Section - II  
Explanation

Notification of Labeling Changes per PR Notice 93-10

Formal notification of compliance with Effluent Discharge Labeling Statements as per PR Notice 93-10 for product AEM 5700 Antimicrobial (64881-2).

Enclosed please find a completed EPA Form 8570-1 and duplicate copies of the subject labeling containing the effluent discharge labeling statements required per PR Notice 93-10 and the attached letter to Dow Corning Corporation, Certified Mail No. Z 069 418 023.

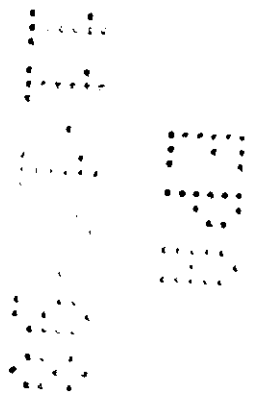
Corrected the use of the signal word "CAUTION" contained in the attached technical bulletin (supplemental labeling), has been replaced with "NOTICE". This correction removes the signal word "CAUTION" from a section of the technical bulletin which should not contain signal words.

This notification is consistent with the provisions of PR Notice 95-2 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 95-2 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

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**ÆGIS ENVIRONMENTS**

3106 SWEDE AVENUE, • MIDLAND, MI 48642-3843 • PHONE: (517) 832-8180 • FAX:(517) 832-7572



5 of 8

# Specimen Label

# AEM 5772 Antimicrobial

**A SILANE QUATERNARY AMMONIUM SALT**

EPA Reg. No. 64881-2  
EPA Est. 34292-MI-01

ACTIVE INGREDIENT: 3-(trimethoxysilyl) propyldimethyloctadecyl ammonium chloride ..... 72%  
INERT INGREDIENTS: ..... 28%

CONTAINS OVER 12% METHANOL

**KEEP OUT OF REACH OF CHILDREN**

**DANGER!**  **POISON**   
**CAUSES EYE DAMAGE**

• **METHANOL MAY CAUSE  
BLINDNESS • HARMFUL OR FATAL  
IF SWALLOWED • VAPOR HARM-  
FUL • AVOID BREATHING SPRAY  
MIST OR VAPORS • AVOID CON-  
TACT WITH SKIN • FLAMMABLE**

**STATEMENT OF PRACTICAL TREATMENT**

IF SWALLOWED: Drink large quantity of water. Have patient lie down and keep warm. Cover eyes to exclude light, call a physician and/or poison control center. IF INHALED: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. IF ON SKIN: Flush with copious amounts of water for at least 15 minutes. IF IN EYES: Flush with copious amounts of water for at least 15 minutes and get immediate medical attention.

**PRECAUTIONARY STATEMENTS**

HAZARD TO HUMANS (& DOMESTIC ANIMALS)

**DANGER! CORROSIVE. CAUSES EYE  
DAMAGE AND SKIN IRRITATION.**

Keep out of reach of children. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Use with adequate ventilation. Vapor harmful. Avoid breathing of vapor. Harmful or fatal if swallowed. Avoid contamination of food. Methanol may cause blindness.

**ENVIRONMENTAL HAZARDS:**

This pesticide is toxic to aquatic organisms. 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.

**PHYSICAL OR CHEMICAL HAZARDS**

Flammable. Keep away from heat and open flame.

**AEM 5772 Antimicrobial**

**DIRECTIONS FOR USE**

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

FOR INDUSTRIAL USE ONLY, AS A FINAL BACTERIOSTATIC, FUNGISTATIC, PRESERVATIVE FINISH IN THE PRESENCE OF MOISTURE

AEM 5772 Antimicrobial is to be used only as directed in AEGIS' Technical Bulletins

**STORAGE AND DISPOSAL**

**STORAGE:** Moisture sensitive. Keep tightly closed until ready to use. Reclose tightly after each use.

**DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are toxic. 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.

**Do not reuse containers. Do not cut or weld containers.** Triple rinse (or equivalent) empty containers. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**NOTICE:** AEGIS warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated in the bulletin when used in accordance with directions under normal conditions of use, but this warranty of fitness for a particular purpose does not extend to the use of this product contrary to bulletin instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use. **AEGIS ENVIRONMENTAL MANAGEMENT, INC. SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY.**

**ATTENTION!** This container will have vapor and/or product residues when emptied. All hazard precautions on label must be observed when handling emptied container.



**METHANOL SOLUTION  
UN1230**



**Sold by:  
AEGIS ENVIRONMENTAL  
MANAGEMENT, INC.  
3106 SWEDE AVENUE  
MIDLAND, MICHIGAN 48642  
1-517-832-8180, U.S.A.**

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MADE IN U.S.A.

SPECIMEN LABEL 1668531      DATE CODE 0198

1668531 PRINTED IN U.S.A. IN JANUARY 1998 REPLACES SPECIMEN LABEL 1668531 PRINTED IN SEPTEMBER 1995. DISCARD PREVIOUS SPECIMEN LABELS. REVISIONS INCLUDE: PRODUCT NAME CHANGE, REGISTRATION NUMBER, SELLER NAME AND ADDRESS.

# AEGIS MICROBE SHIELD™ PROGRAM TECHNICAL BULLETIN

## DESCRIPTION

AEM 5772 Antimicrobial is 3-(trimethoxysilyl) propyldimethyloctadecyl ammonium chloride containing 72 percent active ingredient by weight in methanol.

## FEATURES

**Good durability** — AEM 5772 Antimicrobial imparts durable, broad spectrum antimicrobial activity to the surface of a wide variety of substrates; it is leach-resistant and non-migrating and is not consumed by microorganisms

**Broad-spectrum activity** — effective against gram(+) and gram(-) bacteria, fungi, algae and yeasts; antimicrobial action is exhibited on contact in the presence of moisture

**Increased efficiency** — through proper application, durable bacteriostatic, fungistatic and algistatic surfaces can be attained with a minimum amount of AEM 5772 Antimicrobial

## BENEFITS

Prevents deterioration and discoloration caused by bacteria, fungi, algae and yeasts

Retains the "freshness" of an article by inhibiting or resisting the growth of odor-causing bacteria and mildew (fungus)

Prolongs the life of an article by inhibiting the growth of bacteria and mildew

Provides hygienic freshness

Provides a treatment that is not destroyed by repeated cleaning/washing

Resists odors through chemical protection

Compatible with substrates and processes listed under approved uses

## AEM 5772 ANTIMICROBIAL

U.S. Environmental Protection Agency Registration Number	64881-2 (EPA Est. 34292-MI-01)
Type	Silane quaternary ammonium salt
Physical Form	Low-viscosity liquid
Special Properties	Surface bondability
Primary Uses	As a durable antimicrobial agent that is active against a wide variety of bacteria, fungi, algae and yeasts

## APPROVED USES

AEM 5772 Antimicrobial can be used to impart durable, broad-spectrum, antimicrobial protection to substrates for the following applications:

- Air filters/materials
- Aquarium filter material
- Bed sheets, blankets and bedspreads
- Buffer pads (abrasive and polishing)
- Carpet, draperies and upholstery
- Fiberfill for upholstery, sleeping bags, apparel, etc.
- Fiberglass ductboard
- Fire hose fabric
- Humidifier belts
- Mattress pads and ticking
- Men's underwear and outerwear
- Nonwoven disposable diapers
- Nonwoven polyester
- Outerwear apparel
- Polyurethane and polyethylene foam, when covered
- Polyurethane foam for household, industrial and institutional sponges and mops
- Polyurethane foam for packaging and cushioning in non-food contact applications
- Disposable polyurethane foam cushions for Lapidus Airfloat Systems
- Polyurethane foam used as a growth medium for non-food crops and plants
- Roofing materials
- Sand bags, tents, tarpaulins, sails and ropes
- Athletic and casual shoes

- Shoe insoles
- Shower curtains
- Socks
- Throw rugs
- Toweling
- Toilet tank and seat covers
- Umbrellas
- Vacuum cleaner bags and filters
- Vinyl paper-wallpaper for non-food contact surfaces
- Wiping cloths, premoistened towelettes and tissue wipes (these do not impart pesticidal properties)
- Women's hosiery
- Women's intimate apparel

AEM 5772 Antimicrobial provides residual self-sanitizing activity against athlete's foot fungus (*Trichophyton mentagrophytes*) on treated socks. Durable for up to 10 repeated washings; prevents 99.9% of the growth of athlete's foot fungus on the sock.

## HOW TO USE

Incorporate AEM 5772 Antimicrobial directly into formulations used to make the end-use products listed above, or dilute with water or with organic solvents such as alcohols, ketones, esters, hydrocarbons and chlorinated hydrocarbons and then apply it to the organic and inorganic surfaces to give 0.1 to 1.0 percent by weight of active ingredient. Prepare the solutions by adding the antimicrobial agent to the solvent with stirring.

**NOTICE:** Poor agitation when adding this silane to water can result in locally high concentrations, which may

form gel particles.

Substrates can be treated by brushing, dipping, padding, soaking, spraying, fogging or by using foam finishing techniques.

After applying the antimicrobial agent, dry the substrate at temperatures from ambient to a maximum of 160 C (320 F) to effect complete condensation of silanol groups and to remove water, solvents and/or traces of methanol from hydrolysis. Optimum application and drying conditions, such as time and temperature, should be determined for each application before use in a commercial process.

**STORAGE, HANDLING AND PRECAUTIONARY INFORMATION**

This product is "flammable" and "poisonous." Keep away from heat and open flame.

**Storage and Shelf Life**

When stored in original, unopened containers at or below 25 C (77F), AEM 5772 Antimicrobial has a minimum shelf life of 12 months from date of shipment. Since this material is moisture-sensitive, keep containers tightly closed after each use.

**Handling (Danger)**

Wear goggles or face shield and rubber gloves when handling the concentrated material.

AEM 5772 Antimicrobial, if ingested in amounts incidental to industrial handling, should pose no significant adverse health hazard. Direct contact of the undiluted material with eyes may cause serious injury or blindness. Particular care must be taken to prevent eye contact. In case of contact with eyes, immediately flush eyes with large amounts of water for at least 15 minutes and get prompt medical attention.

Single, short-term skin exposure to

concentrate may cause slight irritation. Contact over several days may cause blistering and a superficial burn. Precautions should be taken to avoid prolonged or repeated skin contact.

Undiluted AEM 5772 Antimicrobial contains 12 percent methanol. Keep away from heat and open flame. Appropriate measures should be taken to prevent the accumulation of hazardous concentrations of methanol vapors in the work area. Avoid breathing vapors.

**Neutralization and Environmental Protection**

AEM 5772 Antimicrobial is toxic to aquatic organisms. This antimicrobial agent, by standard BOD (biological oxygen demand) and TOD (total oxygen demand) determination, does not appear to be biodegradable. Potential harm to the environment is minimized, however, because of the minimal amount of chemical applied and its durable coupling to surfaces. Inactivation of solutions containing AEM 5772 Antimicrobial may be accomplished by addition of an anionic surfactant or detergent in quantity equivalent to that of AEM 5772 Antimicrobial in solution.

Every effort should be made to contain accidental spills of concentrate to the immediate area. This may be accomplished by the use of sandbags or barrier material to confine the spill to facilitate cleanup and disposal. Contaminated sand or barrier material may then be disposed of by burial in an approved landfill. Many spills may be cleaned up with rags or other absorbent materials by wiping, soaking and/or mopping and allowing the liquid to absorb onto the material. The absorbent material may then be disposed of by incineration or landfill.

Floor drains in areas of material use should be protected with absorbent

material or barrier material to contain accidental spills.

**MSDS INFORMATION**

BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET CAN BE OBTAINED BY WRITING TO AEGIS ENVIRONMENTS OR BY CALLING (517) 832-8180. A MATERIAL SAFETY DATA SHEET FOR A TYPICAL USE DILUTION AQUEOUS SOLUTION IS ALSO AVAILABLE.

**Shipping Limitations**

DOT Classification: Flammable.

**Packaging**

AEM 5772 Antimicrobial is supplied in 35- and 400-lb (15.9- and 181.4-kg) containers, net weight.

**IMPORTANT: WARRANTY AND DISCLAIMER INFORMATION**

ÆGIS Environmental Management, Inc. warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated in this bulletin when used in accordance with directions under normal conditions of use; but this warranty of fitness for a particular purpose does not extend to the use of this product contrary to bulletin instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

ÆGIS ENVIRONMENTAL MANAGEMENT, INC. SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY.

**ÆGIS ENVIRONMENTS**  
3106 Swede Avenue  
Midland, Michigan 48642-3843  
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