

64881-5

11/19/2003

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Mr. Harvey Steinberg  
AEGIS Environmental Management Inc.  
3106 Swede Avenue  
Midland, MI 48648-3483

Subject: AEM 5772 Antimicrobial MUP  
EPA Registration No. 64881-5  
Amendment Date: August 20, 2003  
EPA Receipt Date: August 21, 2003

Dear Mr. Steinberg,

The following amendment submitted in connection with registration under FIFRA, as amended, is acceptable with the following conditions:

- Update First Aid Statements per PR Notice 2001-1

**Conditions**

Revise the label as follows:

1. Make the following "Precautionary Statement" revisions:

a) Delete "Concentrate" from the statement "Concentrate causes irreversible eye damage and skin irritation." Precautionary labeling is based on the acute toxicity data submitted on the chemical in the containers that are sold. Based on the submitted data, this product is toxicity category I for primary eye irritation. If you feel this product's toxicity is reduced in use dilution, you may submit use dilution data as prescribed in the Label Manual 3<sup>rd</sup> edition, chapter 7 for use dilution precautionary labeling.

b) This product is categorized as toxicity II for acute inhalation. The statement, "may be fatal if inhaled, must appear after "skin irritation." The label must be specific in stating how "appropriate measures must be taken" by specifying what type of respirator must be utilized when handling this product. Based on previous discussions, you stated that the "Dust mist filtering respirator" as suggested in the Agency letter dated May 22, 2003 was not appropriate for this type of product. In the absence of an alternative, you must state "Wear a NIOSH approved respirator with any N, R, P, or HE filter." If this is not in agreement with the practices at your facilities, submit a notification adding the appropriate respirator information.

**CONCURRENCES**

SYMBOL							
SURNAME							
DATE							

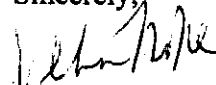
- c.) Revise the "wash thoroughly with soap and water after handling" statement to include the phrase, "...and before eating, drinking, or using tobacco."
- 2. On page 3: revise the first statement, "wear goggles or faceshield and rubber gloves when handling the concentrate" to state "wear goggles or faceshield, protective clothing, rubber gloves, and respirator." This text must agree with the "Precautionary Statements" on the front panel. As stated earlier, if you want alternative precautionary labeling based on the use dilution, you must submit data.
- 3. According to PR Notice 83-3 and Label Manual 3<sup>rd</sup> edition, any pesticide that is classified in toxicity category I or II for acute inhalation and/or I for primary eye irritation, the 1<sup>st</sup> statement under "Pesticide Disposal" must read "Pesticide is acutely hazardous."

**General Comments**

A stamped copy of the labeling accepted with conditions is enclosed. Submit three (3) copies of your final printed labeling before distributing or selling the product bearing the revised labeling.

Should you have any questions or comments concerning this letter, please contact Jacqueline McFarlane at (703) 308-6416.

Sincerely,



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

**CONCURRENCES**

<b>SYMBOL</b>							
<b>SURNAME</b>							
<b>DATE</b>							

ACCEPTED  
 with COMMENTS  
 in EPA Letter Dated:  
 NOV 19 2003  
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**AEM 5772 Antimicrobial MUP**  
**A SILANE QUATERNARY AMMONIUM SALT**  
 EPA Reg. No. 64881-5                      EPA Est. 34292-MI-01

Under the Federal Insecticide,  
 Fungicide, and Rodenticide Act as  
 amended, for the pesticide,  
 registered under EPA Reg. No. 64881-5

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

CONTAINS OVER 12% METHANOL

KEEP OUT OF REACH OF CHILDREN

**DANGER!** ☠ **POISON**

<b>FIRST AID</b>	
Have product container or label with you when calling Poison Control Center or doctor, or going for treatment.	
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If in skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a Poison Control Center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a Poison Control Center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>

**PRECAUTIONARY STATEMENTS**

HAZARD TO HUMANS AND DOMESTIC ANIMALS.

**DANGER! CORROSIVE. CONTAINS 12% METHANOL. CONCENTRATE CAUSES IRREVERSIBLE EYE DAMAGE AND SKIN IRRITATION.** May be harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Wear protective eyewear, rubber gloves, and protective clothing. May be fatal if inhaled. Do not breathe vapor. Appropriate measures should be taken to prevent the accumulation of hazardous concentrations of methanol vapors in the work area. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS:**

This pesticide is toxic to 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.

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.

Inactivation of solutions containing AEM 5772 Antimicrobial MUP may be accomplished by addition of an anionic surfactant, or detergent in quantity equivalent to that of AEM 5772 Antimicrobial MUP in solution.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:  
NOV 19 2003

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## PHYSICAL OR CHEMICAL HAZARDS

Flammable. Keep away from heat and open flame

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 64881-5

## PRODUCT FEATURES AND BENEFITS

AEM 5772 Antimicrobial MUP imparts durable biostatic activity to the surface of a wide variety of substrates. AEM 5772 Antimicrobial MUP is effective against mold, mildew and algae as a static agent. Increased efficiency – through proper application, durable bacteriostatic, fungistatic and algistatic surfaces can be attained with a minimum amount of AEM 5772 Antimicrobial MUP. Provides freshness and combats deterioration and discoloration caused by bacteria, fungi and algae.

## 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.** This product is registered for formulation into Antimicrobial Products or as a microbiostatic agent for material preservation; neither this product nor the articles treated with this product may state or imply any public health claims. Articles or substances treated with this product will be exempt from FIFRA regulation pursuant to 40 CFR 152.25(a) if the intended use for incorporating this material into a treated article or substance is for the protection of the article or substance itself.

**APPROVED USES:** AEM 5772 Antimicrobial MUP is approved for use in formulating antimicrobial products. Formulations that incorporate this product may be used on the following surfaces or sites:

Plastics, fiberglass, metals, glass, wood, ceramics, stone, natural materials, composites; Including air filters for furnaces, air conditioners, air purification devices, automobiles, and recirculating air handling systems; aquarium filters; automotive and vehicular parts; roofing materials (tiles, shakes, shingles, granules, stone, membranes, felt, underlayment and synthetic overcoats); building materials and components (including siding, wallboard, wood and wood composites, insulation and non-food contact cabinetry); ceiling tiles; concrete products; non-food contact conveyor and humidifier belts; non-food contact countertops; fiberglass ductboard for air handling systems; floor covering; flooring; general purpose (non-food contact) containers; furniture; bathroom and non-food contact kitchen hardware; mats; plumbing supplies and fixtures; sheet and formed glass; sponges and mops; vacuum cleaner bags and filters; foam for packaging and cushioning in non-food contact applications.

Fibers, fabrics (natural and synthetic, woven and non-woven), leather and household materials (natural and synthetic); Including buffer pads (abrasive and polishing); mattress cover pads, filling and ticking; pillow covers; sheets; blankets; bedspreads; fiberfill for upholstery, apparel, recreational gear, quilts and pillows; curtains; draperies; carpet and carpet underlay; rugs; upholstery; towels; shower curtains; toilet tank and seat covers; wall covering fabrics and wallpaper (including vinyl) for non-food contact surfaces; umbrellas; fire hose fabric; non-woven disposable diapers; wiping cloths; pre-moistened towelettes and tissue wipes (these do not impart pesticidal properties); apparel including outerwear, sportswear, sleepwear, socks, hosiery, undergarments, gloves and uniforms; footwear (boots, shoes and components); sports equipment and athletic gear; cloth for sails, ropes, tents and other outdoor equipment; sand bags; tarps; awnings; book covers; pictures.

Miscellaneous Manufactured Products; disposable foam cushions for Lapidus Airfloat Systems; foam used as a growth medium for non-food crops and plants.

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:

**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 REGIS ENVIRONMENTS OR BY CALLING (989) 832-8180. A MATERIAL SAFETY DATA SHEET FOR A TYPICAL USE DILUTION AQUEOUS SOLUTION IS ALSO AVAILABLE.

Wear goggles or face shield and rubber gloves when handling the concentrated material. Use with proper ventilation. Undiluted AEM 5772 Antimicrobial MUP contains 12 percent methanol. Avoid breathing vapors. Keep away from heat and open flame. Methanol is released during mixing, application and drying. If desired, methanol removal may be accelerated by heating dilute solution before treatment of substrate. Appropriate measures should be taken to prevent the accumulation of hazardous concentrations of methanol vapors in the work area.

AEM 5772 Antimicrobial MUP can be applied to organic and inorganic surfaces as a dilute aqueous solution to give 0.1 to 1.0 percent by weight of active ingredients. Aqueous solutions can be prepared by simply adding the antimicrobial agent to water with stirring. NOTICE: Poor agitation when adding this silane to water can result in locally high concentrations, which may form gel particles. Surfaces can be treated with the aqueous solution by brushing, dipping, padding, soaking, spraying or fogging until adequately wet, or applying by foaming techniques. After applying treatment, the surface should be allowed to dry at temperatures from ambient to a maximum of 160°C (320° F) to effect complete curing of silanol groups and to remove water, solvents and/or traces of methanol from hydrolysis. Curing of polymer may be accelerated or enhanced with heat or catalysis.

Incorporate AEM 5772 Antimicrobial MUP directly into formulations used to make end-use products, 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.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage and disposal.

**STORAGE:** Store in original, tightly closed container in an area inaccessible to children and away from food or feed.

Moisture sensitive. Keep tightly closed until ready to use. Reclose tightly after each use. When stored in original, unopened containers at or below 25°C (77°F), AEM 5772 Antimicrobial MUP has a minimum shelf life of 12 months from date of shipment.

**PESTICIDE 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.

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



Sold by:

**AEGIS ENVIRONMENTAL MANAGEMENT, INC.**

3106 SWEDE AVENUE, MIDLAND, MICHIGAN 48642 U.S.A.

1-989-832-8180

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MADE IN U.S.A.

**NOTICE:** AEGIS warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated in the labeling 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 written 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.**

**ACCEPTED**  
**with COMMENTS**  
**in EPA Letter Dated:**

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Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 64881-5



**METHANOL SOLUTION  
UN1230**

**SHIPPING LIMITATIONS**  
DOT Classification: Flammable.