

1258-1285

12/8/2004

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Garrett Schifilliti  
Arch Chemicals, Inc.  
501 Merritt 7  
Norwalk, CT 06856

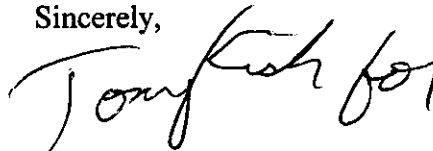
**Subject: Zinc Pyrithione RED Required Label Amendments, All Dated 11/24/04**  
**Zinc Omadine Powder Industrial Microbiostat; EPA Reg. No. 1258-840**  
**Zinc Omadine 48% Dispersion Industrial Microbiostat; EPA Reg. No. 1258-841**  
**Zinc Omadine PVC Industrial Fungicide; EPA Reg. No. 1258-1183**  
**Zinc Omadine Powder AF; EPA Reg. No. 1258-1223**  
**Zinc Omadine 48% Aqueous Dispersion AF; EPA Reg. No. 1258-1224**  
**Zinc Omadine ZOE Dispersion Mildewcide; EPA Reg. No. 1258-1235**  
**Vanquish SL 10 Antimicrobial; EPA Reg. No. 1258-1285 ✓**

The seven amendments referred to above, submitted in connection with re-registration under the Federal Insecticide, Fungicide, and Rodenticide Act), as amended, which provide revised labels with interim label changes as required by the Zinc Pyrithione Red decision memo dated 9/30/04, and further specified in the EPA letter dated 11/4/04 to each registrant with zinc pyrithione products, are acceptable. The products listed above must have the accepted label changes on them the earlier of the next product production cycle, or the next boat painting season in 2005. EPA Reg. No. 1258-1257 (Proxel BZ Preservative) does not require the specified inhalation statement because the inhalation MOE's are acceptable.

Copies of labels stamped "Accepted" are 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, or myself at 703-308-6341.

Sincerely,



Marshall Swindell,  
Product Manager Team 33,  
Regulatory Management Branch I  
Antimicrobials Division (7510C)

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC  
ANIMALS**

**WARNING** CAUSES SKIN IRRITATION AND MODERATE EYE IRRITATION. HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. USERS MUST WEAR PROTECTIVE EYEWEAR (GOGGLES, SAFETY GLASSES, OR FACE SHIELD), LONG SLEEVED SHIRT AND LONG PANTS, SOCKS, CHEMICAL RESISTANT GLOVES AND CHEMICAL RESISTANT FOOTWEAR. USERS MUST WEAR A FIT TESTED, NIOSH APPROVED FULL FACE RESPIRATOR EQUIPPED WITH A COMBINATION ORGANIC VAPOR/P-100 PREFILTER. WHEN MIXING AND LOADING, OR CLEANING EQUIPMENT, WEAR A CHEMICAL RESISTANT APRON. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, OR USING TOBACCO. REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE.

**ENVIRONMENTAL HAZARDS:**

THIS PRODUCT IS TOXIC TO FISH. 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 POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND THE PERMITTING AUTHORITY HAS BEEN NOTIFIED IN WRITING PRIOR TO THE 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. DO NOT CONTAMINATE WATER BY CLEANING OF EQUIPMENT OR DISPOSAL OF WASTES.

Vanquish is a registered trademark of Arch UK Biocides LTD.

NET CONTENTS - 25 KG

Product Code: 06239

**VANQUISH SL 10 Antimicrobial  
An Anti-microbial / Anti-fungal Additive  
for Plastics**

**ACTIVE INGREDIENT:**

N-butyl-1, 2-benzisothiazolin-3-one.....4.75%  
Zinc 2-pyridienthiol-1-oxide.....4.75%  
Inert Ingredients:.....90.0  
Total Ingredients.....100.0%

**KEEP OUT OF REACH OF CHILDREN  
DANGER**

SEE ADDITIONAL PRECAUTIONARY  
STATEMENTS ON SIDE PANEL

**FIRST AID:**

**IF IN EYES:** HOLD EYE OPEN AND RINSE SLOWLY AND GENTLY WITH WATER FOR 15-20 MINUTES. REMOVE CONTACT LENSES, IF PRESENT, AFTER THE FIRST 5 MINUTES, THEN CONTINUE RINSING. CALL A POISON CONTROL CENTER OR DOCTOR FOR TREATMENT ADVICE.

**IF SWALLOWED:** CALL A POISON CONTROL CENTER OR DOCTOR IMMEDIATELY FOR TREATMENT ADVICE. HAVE PERSON SIP A GLASS OF WATER IF ABLE TO SWALLOW. DO NOT INDUCE VOMITING UNLESS TOLD TO BY A POISON CONTROL CENTER OR DOCTOR. DO NOT GIVE ANYTHING TO AN UNCONSCIOUS PERSON.

**IF ON SKIN OR CLOTHING:** TAKE OFF CONTAMINATED CLOTHING. RINSE SKIN IMMEDIATELY WITH PLENTY OF WATER FOR 15-20 MINUTES. CALL A POISON CONTROL CENTER OR DOCTOR FOR TREATMENT

**IF INHALED:** MOVE PERSON TO FRESH AIR. IF PERSON IS NOT BREATHING, CALL 911 OR AN AMBULANCE, THEN GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH, IF POSSIBLE. CALL A POISON CONTROL CENTER OR DOCTOR FOR FURTHER TREATMENT ADVICE.

IN CASE OF EMERGENCY CALL TOLL FREE 1-800-654-6911.

HAVE THE PRODUCT CONTAINER OR LABEL WITH YOU WHEN CALLING A POISON CONTROL CENTER OR DOCTOR OR GOING FOR TREATMENT.

NOTE TO PHYSICIAN: POSSIBLE MUCOSAL DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC LAVAGE FOLLOWING INGESTION

**DIRECTIONS FOR USE:**

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING. DO NOT USE FOR ANY APPLICATIONS INVOLVING DIRECT OR INDIRECT FOOD CONTACT AND/OR DRINKING WATER. SEE TECHNICAL INFORMATION BULLETIN FOR DIRECTIONS FOR USE.

**STORAGE AND DISPOSAL:** DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL. OPEN DUMPING IS PROHIBITED.

**PESTICIDE STORAGE:** PROTECT FROM FROST. IF FROZEN, THAW AND STIR WELL BEFORE USE.

**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.

**CONTAINER DISPOSAL:** TRIPLE RINSE (OR EQUIVALENT) 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.

FOR INFORMATION ON SPILLS,  
CALL 1-800-654-6911

**ARCH CHEMICALS, INC.  
501 MERRITT 7  
NORWALK, CT 06856**

EPA Reg. No. 1258-1285

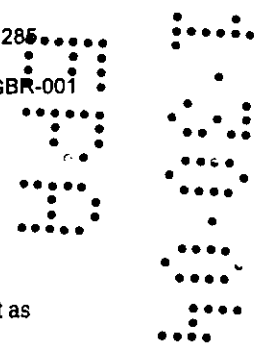
EPA Est. No. 74673-GBR-001

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

DEC 0 8 2004

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

1258-1285



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ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

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Under the Federal Insecticide,  
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1258-1285



## VANQUISH® SL 10 Antimicrobial

### Technical Information Bulletin

### An Antimicrobial / Anti-fungal Additive for Plastics

#### SUMMARY

VANQUISH SL 10 antimicrobial, effective for control of fungi and bacteria, is based on the active ingredients N-butyl-1,2-benzisothiazolin-3-one and zinc 2-pyridinethiol-1-oxide. VANQUISH antimicrobial is used for the protection of plastic products made from polymers such as polyvinylchloride, polyurethane, and others.

VANQUISH SL 10 antimicrobial is registered with the Environmental Protection Agency and has EPA registration No. 1258-1285.

#### TYPICAL PROPERTIES OF VANQUISH SL 10 FORMULATION

<b>Composition</b>	Dispersion of N-butyl-1,2-benzisothiazolin-3-one and zinc 2-pyridinethiol-1-oxide in polyvinylmalate
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**Active agents content, %** 4.75% w/w each

**Physical Form** Liquid

<b>Viscosity (Brookfield spindle #12 @ 20°C)</b>	1500 to 3000
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**Water Content, %** <0.5%

#### GENERAL

VANQUISH SL 10 antimicrobial provides effective control of a wide range of bacterial

and fungal organisms thereby preventing degradation of the product. It can protect the surface of substrates and can prevent objectionable odors and aesthetic problems such as staining, or growth on or in the substrate. VANQUISH SL 10 antimicrobial is easy to use due to its liquid form and excellent compatibility in most systems

#### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labelling. **Do not use for any applications involving direct or indirect food contact and/or drinking water contact.**

Many plastics are considered to be resistant to microbial attack, but there are significant exceptions that merit preventative action by the use of antimicrobial additives. Plasticized PVC, polyurethanes and silicones are particularly susceptible. The biodeterioration of products based on these (and other) types of plastics can be a serious problem for manufacturers. Failure to add the proper amount of anti-microbial additive can lead to premature product failure due to loss of mechanical strength, flexibility or adhesive strength. Also, adverse aesthetic problems such as musty odor, permanent staining or microbial surface growth can lead to customer complaints.

VANQUISH SL 10 antimicrobial is effective against the microbes which degrade plastic

(and plastic additives) can increase the useful life of plastic articles.

VANQUISH SL 10 antimicrobial additive is effective in most plastics compositions and can be used to preserve plastics such as PVC, polyurethanes, polyolefins and others to produce articles such as; shower curtains, coated fabric (e.g. ski wear, raincoats, tents, etc.), floor coverings, underlay & mats, vinyl wall coverings, tarpaulins and awnings, roofing membranes, synthetic leather (e.g. sneakers and training shoe uppers), swimming pool and ornamental pond liners, conveyor belts, appliance gaskets (e.g. washers, refrigerator, etc.), shoe soles and mid-soles, sealants, caulks, weather stripping, non-food contact adhesives, auto parts (e.g. landau tops, door seals, shock absorbers, etc.), foam (e.g. seat cushions, gaskets, insulation) electrical & pipe wrap, furniture (e.g. outdoor, leisure, water bed liners, cushions).

VANQUISH SL 10 antimicrobial additive has been found to be an effective polymer preservative at concentrations of 0.5% to 8.0% based on the total weight of the substrate. Typical range of concentrations on

ACCERTIFIED with COMMENTS in EPA Letter Dated:

DEC 08 2004

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Application 1258-728-5

**%VANQUISH SL 10 Antimicrobial**  
(based on total weight of final product)

Polyvinylchlorides	0.5 to 8.0
Polyurethanes	0.5 to 8.0
Silicones	1.0 to 8.0
Polyolefins	1.0 to 8.0

The concentration required to give protection depends on several factors. These include the susceptibility of the system to microbiological degradation, the extent to

which micro-organisms can gain access, the species involved, pH, temperature, and length of time for which protection is required.

**INCORPORATION OF VANQUISH SL 10 ANTIMICROBIAL INTO POLYMERS**

**Polyurethane:** For addition to cross linked polyurethane VANQUISH SL 10 should be added to the polyol mixture at a concentration that will yield the desired use level in the final product after curing with isocyanate. For thermoplastic polyurethane see 'Melt-Processed Polymers' below.

**Melt Processed Polymers:** For addition to melt processed polymers (PVC, thermoplastic polyurethane, etc.), Vanquish SL10 may be metered into the melt at the injection point in an extrusion system to yield concentrated chips (masterbatch) or the desired end use concentration. Masterbatch chips can be blended with non-preserved chips in the users plant to yield the desired end use concentration upon subsequent melt processing.

**For PVC VANQUISH SL 10** may also be added to the mixed liquid components which are added to a blend of resin and other solid components, shear mixed until a dry blend is achieved and then processed through extrusion, calendering, molding or other system.

**PVC Plastics:** Incorporation is very flexible and VANQUISH SL 10 antimicrobial liquid may be added to other liquid components during manufacture or blended into a ready-made plastic. Use levels should be calculated based upon the total weight of the formulation.

**For silicone sealants,** the VANQUISH SL 10 may be added to the silicone oil before processing, or to the manufacturing vessel before packing off.

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For polyolefin, VANQUISH SL 10 may be mixed with powdered polymer to yield the desired end use concentration then extruded, followed by fabrication to molding or film, etc. Alternatively, VANQUISH SL 10 may be made into a masterbatch by extrusion, diluted to end-use concentration with more polymer in the extruder, then fabricated as required.

The Arch Chemicals, Inc. can provide guidance on the proper use of Vanquish anti-microbial.

**FIRST AID**

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

For additional information in case of emergency call toll free 1-800-654-6911. Have the product container or labeling with

you when calling a poison control center or doctor or going for treatment. **ACCEPTED** with COMMENTS in EPA Letter Dated:

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS** DEC 08 2004

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 1258-123

**WARNING**

Causes skin irritation and moderate eye irritation. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or clothing. Users must wear protective eyewear (goggles, safety glasses, or face shield), long sleeved shirt and long pants, socks, chemical resistant gloves and chemical resistant footwear. Users must wear a fit tested, NIOSH approved full face respirator equipped with a combination organic vapor/P-100 prefilter. When mixing and loading, or cleaning equipment, wear a chemical resistant apron. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish. 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 Pollution 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. Do not contaminate water by cleaning of equipment or disposal of wastes.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

**Storage**

Protect from frost. If frozen, allow to thaw and stir well before use.

**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.

**Container Disposal**

Triple rinse (or equivalent). 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.

For information on spills, call 1-800-654-6911.

**SAFE HANDLING INFORMATION**

Refer to the Material Safety Data Sheet (MSDS) available from Avecia Biocides for information on the safe use, handling and disposal of this product.

**FOR YOUR PROTECTION**

Arch Chemicals, Inc. ("Arch") warrants that this product conforms to the chemical description on the label and that it is reasonably fit for the purposes stated on the label when used in accordance with Arch's directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Arch, and the buyer or user assumes the risk of any such use. ARCH DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY.

Statements herein, therefore, should not be construed as representations or warranties.

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Under the Federal Insecticide,  
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registered under EPA Reg. No.  
1255-1255

IN NO EVENT SHALL AVECIA BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS, ON ANY THEORY WHATSOEVER, INCLUDING NEGLIGENCE, and ARCH's sole liability and Buyer's and User's exclusive remedy shall be limited to the refund of the purchase price. Statements concerning the use of the products or the formulations described therein are not to be construed as recommending the infringement of any

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patent and no liability for infringement  
arising out of any such use is assumed.

Arch Chemicals, Inc.  
501 Merritt 7  
Norwalk, CT 06856

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1258-10285