

(Center Panel)

## VANQUISH DOP Antimicrobial

AN ANTIMICROBIAL IN PLASTICIZER FOR USE IN THE PRESERVATION OF PLASTICS AND RUBBER PRODUCTS

**ACTIVE INGREDIENT:**

N-BUTYL-1, 2-BENZISOTHIAZOLIN-3-ONE: 9.5%

INERT INGREDIENTS: 90.5%

TOTAL INGREDIENTS: 100.0%

### KEEP OUT OF REACH OF CHILDREN WARNING

**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.

**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, AND 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 LABEL WITH YOU WHEN CALLING A POISON CONTROL CENTER OR DOCTOR OR GOING TO TREATMENT.

**NOTE TO PHYSICIAN**

PROBABLE MUCOSAL DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC LAVAGE FOLLOWING INGESTION.

SEE ADDITIONAL PRECAUTIONARY STATEMENTS ON THE SIDE PANEL

**MANUFACTURED BY:**

Arch Chemicals, Inc.  
501 Merritt 7

Norwalk, CT 06856

EPA REG. NO. 1258-1251

EPA EST. NO. 74637-GBR-001

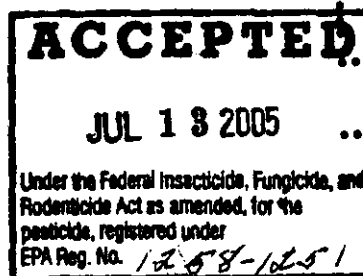
LOT NUMBER:

PRODUCT CODE: **06240**

CONTENTS: LBS. NET MINIMUM

(APPROX. U.S. GALLONS)

Vanquish is a Registered Trademark of Arch UK Biocides LTD



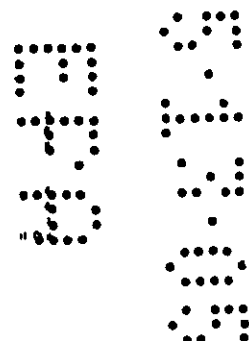
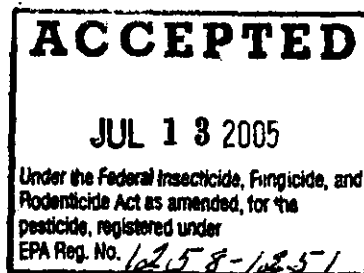
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PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING**

HARMFUL IF ABSORBED THROUGH THE SKIN. DO NOT GET IN EYES. CAUSES EYE IRRITATION. AVOID CONTACT WITH SKIN. DO NOT BREATHE VAPORS. USE ADEQUATE VENTILATION. IF NEEDED, USE NIOSH CERTIFIED RESPIRATOR FOR ORGANIC VAPORS, MISTS, OR FUMES. WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING, DRINKING, 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 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. DO NOT CONTAMINATE WATER BY CLEANING OF EQUIPMENT OR DISPOSAL OF WASTES.



## (Right Panel)

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Many plastics are considered to be resistant to microbial attack, but there are significant exceptions that merit preventative action by the use of antimicrobial additive. Plasticized PVC, polyurethane's and silicones are particularly susceptible. The biodeterioration of products based on these types of plastics can be a serious problem for manufacturers. Failure to add the proper amount of antimicrobial 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 DOP Antimicrobial is effective against the microbes which degrade plastic (and plastic additives) or natural rubber and can increase the useful life of plastic articles.

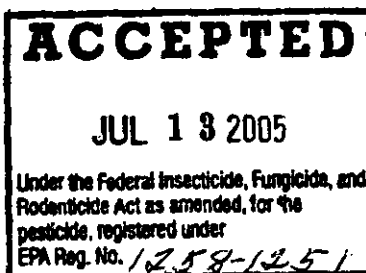
VANQUISH DOP Antimicrobial additive is effective in most plastics compositions and can be used to preserve such plastics as PVC, polyurethane, silicone, acrylics, and others to produce articles such as;

- shower curtains
- coated fabric (e.g. ski wear, raincoats, tents)
- floor coverings, underlay & mats
- vinyl wall coverings
- tarpaulins and awnings
- roofing membranes
- synthetic leather (e.g. sneakers and training shoe uppers)
- swimming pool liners, ornamental pond liners
- appliance gaskets (e.g. washers, refrigerator)
- shoe soles and mid-soles
- sealants, caulks, weather stripping & non-food contact adhesives
- pet toys and general household items (shower curtains, bath mats)
- auto parts (e.g. landau tops, door seals, shock absorbers)
- foam (e.g. seat cushions, gaskets, insulation)
- tubing (e.g. marine hose and sleeving)
- electrical & pipe wrap
- furniture (e.g. outdoor, leisure, water bed liners)

Do not use this product to treat food/feed or drinking water contact items or toys.

Vanquish DOP Antimicrobial additive has been found to be an effective polymer preservative at concentrations of 0.3% to 5.0% based on the total weight of the substrate. Typical range of concentrations on which trials can be based, are:

<b><u>Application</u></b>	<b>%VANQUISH DOP Antimicrobial (based on total weight of final product)</b>
Plasticized PVC	0.3 to 5.0
Polyurethane's	0.5 to 5.0
Silicones	0.3 to 5.0
Polyesters	0.5 to 10
Acrylics	0.5 to 10
Synthetic elastomers such as butadiene-styrene styrene- isoprene and acrylonitrile- butadiene- styrene	0.3 to 10
Natural latex rubber	0.3 to 5



The concentration required to give protection depends on several factors. These include the susceptibility of the system to microbiological degradation, the extent to which microorganisms can gain access, the species involved, pH, temperature, and length of time for which protection is required.

#### **INCORPORATION OF VANQUISH Phthalate ANTIMICROBIAL INTO POLYMERS**

**PVC plastisols:** For addition to PVC plastisols Vanquish DOP Antimicrobial liquid may be added along with the other additives. Use levels should be calculated based upon the total weight of the formulation.

**Cross Linked Polyurethane:** For addition to cross linked polyurethane Vanquish DOP Antimicrobial liquid should be added to the polyol at a concentration that will yield the desired use level in the final product after reaction with the isocyanate component. Vanquish DOP Antimicrobial may also be incorporated at an injection port of a reaction injection molding (RIM) machine.

**Melt Processed Polymers:** For addition to melt processed polymers (PVC, thermoplastic polyurethane, synthetic elastomers and thermoplastic acrylics etc.) Vanquish DOP Antimicrobial liquid may be metered into the melt to yield the desired end use concentration. For example at the injection point in an extrusion system.

**PVC:** Vanquish DOP Antimicrobial liquid may be added to the mixed liquid components added to a blend of PVC resin and solids, shear mixed until a dry blend is achieved and then processed through extrusion, calendering, molding or other system.

**Acrylics:** In addition to the above, Vanquish DOP Antimicrobial liquid can be added to the liquid monomers before polymerization or in the case of thermoplastic acrylic the Vanquish Phthalate liquid can be added by direct injection into an extruder or other blender.

**Silicone:** For silicone sealants, the Vanquish DOP Antimicrobial liquid may be added to the silicone oil before processing, or to the manufacturing vessel before packing off.

**Natural Rubber:** Vanquish DOP Antimicrobial can be added to the latex.

The Arch Technical Service Group can provide guidance on the proper use of Vanquish antimicrobial.

**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, 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.

#### **ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID N.O.S. (CONTAINS BIS (2-ETHYLHEXYL) PHTHALATE**

**UN 3082**

