



## VINYZENE™ IT-4020 DINP Antimicrobial

Antimicrobial Additive for Plastics

EPA Reg. No. 707-208

### General

VINYZENE™ IT-4020 DINP Antimicrobial is a solution of 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one in a non-volatile plasticizer carrier. VINYZENE IT-4020 DINP is an effective fungicide for use in Vinyl, polyurethane and other polymeric compositions requiring fungal protection. Low levels of VINYZENE IT-4020 DINP will provide long term preservation against fungal attack and will help prevent surface growth, permanent staining, embrittlement and premature product failure.

### Physical Properties

The following are typical properties of VINYZENE™ IT-4020 DINP Antimicrobial; **they are not to be considered product specifications.**

Active ingredient: .....	20%
Diisononylphthalate: .....	80%
Appearance: .....	Straw-colored, clear liquid
Specific gravity: .....	0.99
Odor:.....	Mild

### Applications/ Directions for Use

VINYZENE™ IT-4020 DINP Antimicrobial is recommended for Vinyl film and sheeting, extruded profiles, plastisols, molded goods, organosols, fabric coatings, urethanes and urethane foams, and similar polymeric systems. The antimicrobial is compatible with most polymer formulations and will not discolor or detract from the protected product's chemical or physical properties. VINYZENE IT-4020 DINP solution can be conveniently incorporated into the formulation during the mixing or compounding processes.

### Recommended Use Levels

In general, VINYZENE™ IT-4020 DINP Antimicrobial is recommended at concentrations between 0.4% and 1.0%. For outdoor applications, a level of 10% is recommended in Vinyl formulations for maximum effectiveness. Dow maintains extensive microbiological, chemical and physical testing facilities in order to assist the manufacturer in determining the optimum level of antimicrobial agent required for each compound.

VINYZENE IT-4020 DINP contains 80% DIDP. Therefore, when using this product in a compound, the appropriate adjustment of plasticizer in the formulation must be made. For example, if 1% of VINYZENE IT-4020 DINP is used, then a 0.8% reduction of plasticizer is required to maintain equivalent plasticity. It is important to remember that the cost of using VINYZENE antimicrobial additives is, therefore, calculated as the difference in cost between the VINYZENE antimicrobial additive and the replaced plasticizer.

VINYZENE IT-4020 DINP should be added early in the blending operation to assure homogeneity.

### Handling Precautions

In its undiluted form, VINYZENE™ IT-4020 DINP Antimicrobial is corrosive to the skin or eyes. If VINYZENE IT-4020 DINP is splashed in the eyes, flush with copious amounts of water and secure immediate medical attention. If it is splashed on the skin, wash thoroughly with soap and water. VINYZENE additive solutions are harmful if swallowed and should be kept out of reach of children.

Wear eye protection and rubber gloves when handling.

VINYZENE™ additives are toxic to fish and wildlife and should not be discharged where they can drain into lakes, streams, ponds, or public water.

VINYZENE IT-4020 DINP Antimicrobial should only be used as specified on the label.

## **Storage and Disposal**

VINYZENE™ IT-4020 DINP Antimicrobial is subject to freezing if stored at cold temperatures. If any freezing occurs, fully thaw the entire contents of the drum by storing at room temperature before using.

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

Triple rinse empty containers and offer for recycling or reconditioning. Plastic drums which cannot be reconditioned and recycled should be punctured or crushed, and disposed of in landfill or other procedures approved by state and local authorities.

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of U.S. 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 U.S. EPA Regional Office for guidance.

### **Standard Package**

440 lbs. net weight

## **Product Stewardship**

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products – from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

## **Customer Notice**

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including Safety Data Sheets (SDS), should be consulted prior to use of Dow products. Current Safety Data Sheets are available from Dow.

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