



VINYZENE™ SB-27

Antimicrobial Additive for Plastics

PRODUCT DESCRIPTION

VINYZENE SB-27 antimicrobial is a concentrate of 4, 5-dichloro-2-n-octyl-4-isothiazolin-3-one in a polymeric resin carrier. The product, supplied as a homogeneous solid in pelletized form, is recommended for Vinyl and other polymeric compositions requiring preservation against fungal and bacterial deterioration. Low levels of VINYZENE SB-27 antimicrobial will provide long term preservation against fungal and bacterial attack and will help prevent surface growth, permanent staining, embrittlement and premature product failure.

Typical Properties

Composition:	
4, 5-dichloro-2-n-octyl-4-isothiazolin-3-one:	10%
Resin Carrier: Vinyl	62.0%
Inert Ingredients	28.1%
Pellet Size:	Approx. 1/16" x 1/16"
Bulk Density (ASTM D-1895):	80.1 kg/cu. meter
Specific Gravity:	1.25 @ 21°C
Appearance:	Clear, Light Straw Pellet
Torque Rheometer Viscosity (Rheocord):	610 meter-grams
Melting Point (ASTM D-3418)	63°C (146°F)

APPLICATION

The most commonly used methods for preserving plastics against fungal and bacterial attack are to add liquid solutions of additives (such as the VINYZENE IT series) or to add pure active ingredient in powdered form. Such highly concentrated powders are often toxic and must be handled with extreme caution; they can present hazards to production personnel due to dusting problems and also can cause contamination of processing equipment.

Liquid systems have eliminated the dusting problem, but care still has to be taken to minimize contact with the skin and eyes of production workers. Rubber gloves and goggles are usually recommended to ensure safe handling.

VINYZENE SB-27 antimicrobial not only eliminates dusting problems, but also reduces the need for special handling. It is compatible with most thermoplastic resins and will not discolor or detract from the product's chemical or physical properties.

VINYZENE SB-27 antimicrobial can be incorporated into the resin compound at any convenient stage of the manufacturing process. The product can be fed into an extrusion operation in much the same way as pelletized color concentrates. Properly formulated compounds containing VINYZENE SB-27 antimicrobial will resist fungal and bacterial deterioration after long term exposure to heat and severe weathering conditions.

For those processors and compounders unable to use VINYZENE SB-27 antimicrobial in pellet form, other isothiazolin based VINYZENE fungistatic compounds are available as 4%, 10%, 20% and 25% active solutions in various plasti-cizers. Contact Rohm and Haas for additional information.

RECOMMENDED USE LEVELS

Effective preservation against the growth of fungi and bacteria can be obtained with low levels of VINYZENE SB-27 antimicrobial. The addition level is dependent upon the fungal and bacterial susceptibility of the product, the amount of preservation required, the ultimate use of the product and the degree of exposure to outdoor weathering or other conditions favorable for fungal and bacterial growth.

The following recommended use levels are based upon tests conducted in ROHM AND HAAS COMPANY laboratories and experience with exposure of products to actual service conditions.

FUNGAL AND BACTERIAL SUSCEPTIBILITY TESTING AND ASSISTANCE IN DEVELOPING FORMULATIONS TO MEET YOUR SPECIFIC REQUIREMENTS ARE AVAILABLE FROM ROHM AND HAAS COMPANY.

Interior Applications: such as Vinyl floor and wall coverings, coated fabrics for upholstery, interior automotive parts, refrigerator gaskets, shower curtains and mattress covers.

Use from 0.8% to 1.2% of VINYZENE SB-27 antimicrobial based upon the total weight of the formulation (8 kg/1000 kg of compound).

Exterior Applications: such as automotive landau tops, exterior automotive trim, single ply roof membranes, tarpaulins, awnings, ditch and pool liners, marine upholstery and swimming pool liners.

Use from 1.2% to 2.0% of VINYZENE SB-27 antimicrobial based upon the total weight of formulation (12 kg/1000 kg of compound).



PLASTICS ADDITIVES

Fungal and bacterial activity under severe outdoor exposure is influenced by the overall weatherability of the plastic system. Recommendations on formulation parameters for products subjected to long term outdoor exposure are available from ROHM AND HAAS COMPANY.

TOXICOLOGY

Extensive toxicological studies have been conducted by recognized independent testing laboratories. Based on these tests, VINYZENE SB-27 has been placed in Toxicity Category III (40 CFR Section 156.10 (h)). The appropriate precautionary statements specified for this category are printed on the product label.

STORAGE AND DISPOSAL

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

Remove empty polyethylene liners from the drum and incinerate the liner or dispose with other refuse.

Empty drums may be reconditioned and recycled. Alternatively, crush fiber drums and incinerate or dispose with other refuse.

Metal drums that cannot be reconditioned and recycled, should be crushed and disposed in landfill.

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.

EPA REQUIRES THAT ANY PESTICIDE PRODUCT SHOULD ONLY BY USED AS SPECIFIED ON THE CONTAINER LABEL.

STANDARD PACKAGING

159 kg net steel drum

EPA REGISTRATION NO. 2829-140

MATERIAL SAFETY DATA SHEETS (MSDS)

Material Safety Data Sheets are available outlining hazards and safe handling methods. Contact Rohm and Haas for copies of the MSDS for this product and for other handling information.

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