



EPA Registration No. 5383-110  
Product Code: 10804

## POLYPHASE® SA27

### Description

Polyphase® SA27 is a broad-spectrum fungistat. Its primary application is in water-based products, especially those in which VOC is a major concern.

### Application & Use

Polyphase SA27 offers excellent fungal protection in adhesives, caulks, and sealants. This protection is non-leaching. Polyphase SA27 can be used both for interior or exterior applications.

### Product Highlights

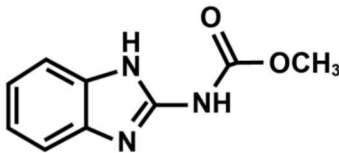
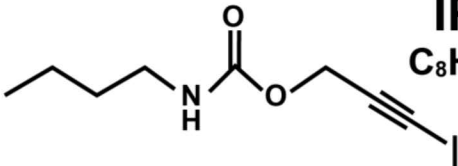
- Zero VOC
- Contains no alkylphenol-ethoxylates
- Color stable
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### Physical Properties

The following are typical properties of Polyphase SA27; they are not to be considered product specifications.

Appearance: ..... White flowable dispersion  
Specific Gravity, 25°C:..... 1.16  
pH (as is) ..... 7.5  
Viscosity, 25°C ..... 600 cps  
Flash Point (ASTM D3278-96)..... >100°C/ >212°F

### Active Substances

15%	Methylbenzimidazole-2-yl Carbamate	 <b>BCM</b> $C_9H_9N_3O_2$
5%	3-Iodo-2-propynyl butyl carbamate	 <b>IPBC</b> $C_8H_{12}INO_2$

## Antimicrobial Activity

Fungi	MIC*
<i>Alternaria alternate</i>	0.72
<i>Aspergillus flavus</i>	0.56
<i>Aspergillus niger</i>	0.48
<i>Aureobasidium pullulans</i>	0.13
<i>Cladosporium cladosporioides</i>	0.13
<i>Penicillium fellutanum</i>	0.16
<i>Penicillium notatum</i>	0.13
<i>Penicillium pinophilum</i>	0.17
<i>Stachybotrys chartarum</i>	0.30
<i>Trichoderma viride</i>	0.82

\*Minimum inhibitory concentration (MIC) is an indication of which microorganisms can be controlled by a preservative and the concentration at which growth of the test organism is inhibited under laboratory conditions. MIC values are expressed in parts per million (ppm). The lower the MIC value in ppm, the greater the product's effectiveness. MIC values should only be used for relative comparisons. Practical use concentrations are generally much higher and should be established through field tests and actual use.

## Function/Activity

### Suggested Application Levels

Adhesives, caulks & sealants: ..... % Wt/Wt  
0.3 – 1.5

Suggested application use rate is based on laboratory and field evaluations and is typical for the use areas indicated. Suggested use levels are reported as percentage weight/weight in the final use product. The actual level of **Polyphase® SA27** required is formulation specific. The individual components of the formulation, the substrate being applied to, and the environment in which the final material will be exposed all have an influence on the amount of protection needed. Suggested use levels should be verified by field trials of the end-use product.

### Compatibility

Polyphase SA27 provides superior color stability in adhesive and sealant formulations as shown in testing performed in a formulation known to be highly sensitive to discoloration.

Test Product	Delta B Values
Polyphase SA27 (0.3%)	0.41
20% IPBC (0.3%)	4.23

\*Test products applied at triple expected normal use rate. Delta B values less than 2 under the test conditions used are considered to represent low probability of noticeable yellowing in actual use.

## Formulation Considerations

Polyphase SA27 should be added toward the end of the production cycle with good agitation at low shear. All suggested use applications should be evaluated for final product efficacy, color uniformity, and pH, temperature and storage stability prior to commercialization. Metal containers for formulated products should always be lined. Do not store formulated products for prolonged periods in iron or steel containers.

For use in systems with a pH range of 5-10.

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## Shipping & Packaging

Polyphase® SA27 is packaged in:

Shipping Container	Net Weight	Shipping Container	Net Weight
Pail	45 lbs. / 20 kg.	Large Drum	441 lbs. / 200 kg.
Small Drum	110 lbs. / 50 kg.	Tote	2500 lbs. /1134 kg.

## Product Safety & Additional Information

For handling, storage, health, and safety information and disposal procedures, as well as additional information, please refer to the Safety Data Sheet (SDS) and product label.

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