PRODUCT TECHNICAL DATA

XYTU® Preservative PV15

Introduction

PV15 is a high-efficiency, low-toxicity biocide developed by Nanjing Xinyi Synthetic Technology Co., Ltd. It is suitable for latex paints, polymer emulsions, pigment slurries and various aqueous systems. It can also inhibit the growth of bacteria and fungi during the production and storage of printing inks and other water-containing organic products. PV15 has been widely used for preservation of emulsions in large storage tanks. PV15 is an in-can preservative for waterborne paints and coatings. Extensive laboratory and field experience has shown that PV15 provides excellent bactericidal and preservative performance in acrylic, polyvinyl acetate, polystyrene butyl and other copolymer systems and is highly compatible with their organic and inorganic components.

PV15 Characteristics

Main chemical component	Content
5-Chloro-2-methyl-4-isothiazolin-3-one	1.15%
2-Methyl-4-isothiazolin-3-one	0.35%
Active-ingredient concentration	1.5%
Viscosity (25°C)	3 cP
Appearance	Pale blue-green liquid
Specific gravity (25°C)	1.02
Odor	Mild aromatic
Solubility (water)	Miscible in all proportions
pH	2-4
Solubility (organic solvents)	Soluble in most organic solvents

Recommended Use of PV15

PV15 preservative is supplied as a liquid and is easy to mix. Tests show that the bactericidal and preservative performance of PV15 is not affected by the point of addition. PV15 may be added directly during grinding or paint formulation. To ensure uniform dispersion after addition, the emulsion or waterborne paint must be stirred thoroughly.

PV15 should be used in alkaline systems with a pH below 9 and at temperatures not exceeding 40°C (short-term exposure up to 60°C) for optimum performance.

Waterborne coatings: 0.05%-0.167%, equivalent to 0.5-1.67 L of PV15 per tonne of product.

Polymer emulsions: 0.05%-0.33%, equivalent to 0.5-3.3 L of PV15 per tonne of product.

Advantages

- Broad-spectrum activity: inhibits both bacteria (including Gram-negative and Gram-positive bacteria) and fungi (yeasts, molds and similar organisms).
- Low cost: lower cost at effective use concentration than generally available biocides, with simple application.

Advantages (continued)

- Non-toxic at the recommended use concentration and contains no formaldehyde or formaldehyde-releasing substances.
- Excellent physical and chemical compatibility with no adverse effects on finished products.
- Low active concentration and environmentally friendly.

Packaging and Storage

20 kg/drum. Store PV15 indoors at ambient temperature in a well-ventilated area. Do not use unlined metal containers for PV15. At normal storage temperature, the product has a minimum stability period of one year.