

Nonionic Low-foam Dynamic Wetting Agent SURFADOL® 440

SURFADOL® 440 is a very good substrate wetting agent that offers good foam control with a moderate solubility in aqueous systems. It is suitable for waterborne coatings and inks.

Composition

100% active liquid
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate
CAS No: 9014-85-1

Typical properties

Chemical family	Ethoxylated acetylenic diol; Nonionic surfactant
Appearance	Light yellow liquid
HLB value	8
Equilibrium surface tension (concentration 0.1%, 1b/s)	35.2 dynes/cm
Dynamic surface tension (concentration 0.1%, 6b/s)	36.7 dynes/cm
Density at 25°C, g/cm ³	0.98
Viscosity at 25°C, cps	< 200
Solubility in water	Slightly soluble
Suggested use level	0.1% - 1.5% of total formulation weight

COA specifications

Test Item	Standard
Appearance	Light yellow liquid
APHA Color (Pt-Co)	≤350
Density at 25°C, g/cm ³	0.900-1.000

Special properties

- Specifically designed for water-based systems
- Reduce dynamic surface tension
- Improve wetting of low-energy or contaminated substrates
- Defoaming/de-airentainment in concrete and oil field cements
- Wet and prevent smut formation in metalworking fluids
- Suitable for food contact compliant formulations
- Silicone-free, APEO free, non-toxic, solvent free

Examples of application

- Water-based printing inks
- Agricultural chemicals
- Fountain solutions
- Water-based adhesives
- Waterborne industrial coatings
- Metalworking lubricants

Related ethoxylated surfactants

A variety of ethoxylated acetylenic diols can be produced from 2,4,7,9-Tetramethyl-5-decyne-4,7-diol and different amount of ethylene oxide.

SURFADOL® surfactant	Physical form	HLB value	Solubility in water
SURFADOL® 420	Light yellow liquid	4	Slightly soluble
SURFADOL® 465	Light yellow liquid	13	Soluble
SURFADOL® 485	Yellow paste	17	Soluble
SURFADOL® 2502	Light yellow liquid	7.8	Slightly soluble

Processing instructions

- Addition to the coating as supplied or as a predilution is possible.
- Can be introduced in the grind and let-down stage.

Package and storage

The standard package for SURFADOL® 440 is 180kg plastic drums, 4 drums/pallet.
The product can also be supplied in 955kg IBCs and 20kg pails.

Keep containers tightly closed in a dry, cool, and well-ventilated place. Product is normally freeze-thaw stable; if it phase separates or freezes at colder temperatures, warm container to 40°C and mix thoroughly before use.

When stored in an original unopened packaging, the product has a shelf life of 48 months from the date of manufacture.