

DeTERIC CSP-50

DeTERIC CSP-50 is a phosphated amphoteric that is soluble and stable in up to 50% liquid caustic soda and up to 45% liquid caustic potash.

It exhibits low, quick breaking foam and affords wetting and surface tension reduction properties to highly caustic applications. It also has excellent color stability in high caustic environments.

SPECIFICATIONS

Appearance @ 25°C:	Clear, almost colorless liquid
% Solids:	20.0% - 23.0%
pH (5% in DI water):	9.0-11.0
Color (Gardner):	1 max.

SOLUBILITY (10% by weight): DeTERIC CSP-50 is dispersible in water, soluble in alcohols & glycols and insoluble in oils & most solvents.

TYPICAL PROPERTIES

Density @ 25°C ~1.06 g/ml

- Stable in 50% NaOH and 45% KOH
- Excellent color stability in high caustic environments
- Detergency, wetting and surface tension reduction
- Stable in other alkaline electrolytes
- Low, quick breaking foam
- Hard water stable
- Biodegradable

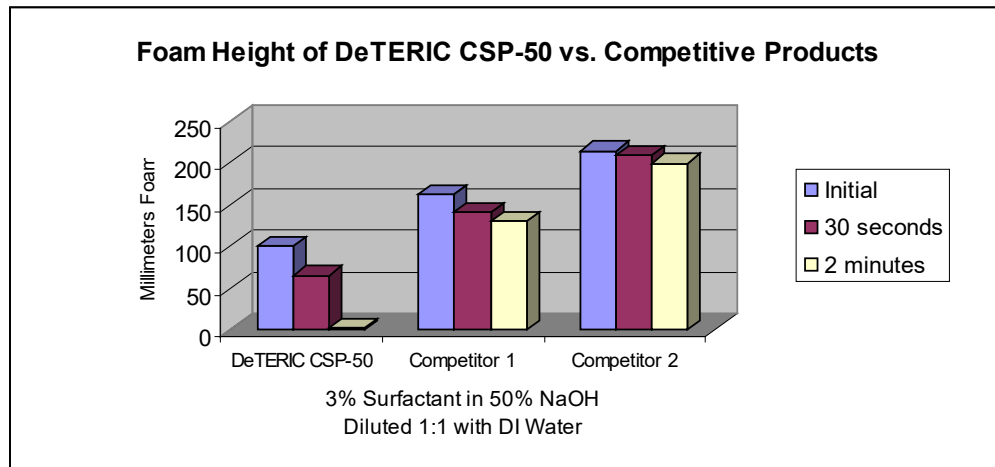
APPLICATIONS

- Highly alkaline cleaners
- Food plant cleaners
- Bottle washing
- Paint and wax strippers
- Truck and equipment washing
- Grill and oven cleaners
- Smokehouse cleaners
- Coil cleaning
- Drain openers
- Lye peeling
- Industrial laundry detergents
- Steam cleaners

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Foam Height of DeTERIC CSP-50

The foaming properties of DeTERIC CSP-50 were determined via Modified Ross-Miles Foam Height, graduated cylinder shake test using 3% by weight of surfactant in 50% active sodium hydroxide. The test solutions were further diluted 1:1 with deionized water prior to testing.



Surface Tension Properties of DeTERIC CSP-50 (dynes/cm)

Test solutions contained 3% by weight of surfactant in 50% active sodium hydroxide. Solutions were diluted 1:1 with deionized water prior to testing.

DeTERIC CSP-50		Competitor 1		Competitor 2	
Initial	One Month	Initial	One Month	Initial	One Month
32.8	33.7	34.1	35.0	33.4	37.5

Draves Wetting (seconds)

Test solutions contained 3% by weight of surfactant in 50% active sodium hydroxide. Solutions were diluted 1:1 with deionized water prior to testing.

DeTERIC CSP-50		Competitor 1		Competitor 2	
Initial	One Month	Initial	One Month	Initial	One Month
11	16	11	20	10	11

Continued

Color Stability of DeTERIC CSP-50

All test solutions are 3% surfactant by weight in 50% active sodium hydroxide. Appearance and Gardner Color of each solution were determined initially and after one month at ambient temperature. Similar results were observed in 45% active potassium hydroxide.



Figure A: DeTERIC CSP-50

Figure A: DeTERIC CSP-50

Initial Appearance: Gardner Zero, Clear
One Month: Gardner One, Clear



Figure B: Competitor 1

Figure B: Competitor 1

Initial Appearance: Gardner Zero, Clear
One Month: Gardner Six, Clear



Figure C: Competitor 2

Figure C: Competitor 2

Initial Appearance: Gardner <One, Clear
One Month: Gardner Two, Hazy, Separated