TECHNICAL DATA SHEET

Flexisperse™ 225

Anionic dispersant polymer

Overview

- Aqueous anionic polymer dispersant/ deflocculant and rheology modifier
- Non-discoloring dispersing agent for the preparation of high solids aqueous mixtures
- Effectively suspends many types of solids (particulates, pigments, carbon black, abrasives, fillers)
- Produces long-term stable suspensions over a broad range of solids loading levels
- Improves storage stability of aqueous emulsions
- Prevents scale and hard water deposits
- Effectively functions as an anti-redeposition agent
- Complies with the following US FDA Sections regarding indirect food additives:
  - 21 CFR 175.105 Adhesives
  - 21 CFR 175.300 Resinous and polymeric coatings
- WERCS ID number: WPS1145599
- WERCS Validation number: 1145599

Applications

- Paints, coatings, resins, and adhesive formulations
- Pottery and ceramic slips
- Dye concentrates
- Paper coatings, fabric & nonwoven finishing and binder applications
- Liquid suspension fertilizers, fertilizer granulation, pesticide suspensions
- Detergent formulations including automatic dishwasher detergents
- Boiler water treatment

Technical Information

Flexisperse 225 produces stable suspensions and dispersions at higher concentrations with lower viscosities. The addition of small amounts of Flexisperse 225 will allow a significant increase in the concentration of powder, granular and fibrous materials in many aqueous dispersion formulations. The shelf life or working time of dilute suspensions can be lengthened by the addition of small amounts of the dispersant. Time and energy requirements to manufacture stable high solids dispersions can be reduced. Flexisperse 225 provides excellent stability and viscosity control to formulations.

Formulary

Use at a rate of 0.025-0.05% Flexisperse 225 (as supplied) in low concentration dispersions. For example, 0.04% Flexisperse 225 effectively suspends 0.5% iron oxide in deionized water while exhibiting anti-soil redeposition characteristics.

Use at a rate of 0.5-1.0% in high concentration dispersions. For example, 0.7% Flexisperse 225 results in a low viscosity dispersion of 70% EPK clay in deionized water.

Typical Properties

PROPERTY	VALUE
Appearance	Clear, colorless to pale yellow liquid (Note: the color may shift to a pinkish beige over time)
Odor	Mild
Ionic character	Anionic
Water solubility	Soluble
pH (5% aq.)	10.5±1.5
Density@25°C	1.16±0.02 g/ml
Boiling Point	100°C
Flash point	None (aqueous)
Storage	Stable to freezing
Shelf life	12 months

Packaging and Handling

Flexisperse 225 is available in:
Bulk (44,000 lbs)
275 gallon totes (Net Wt. 2500 lbs)
55 gallon plastic drums (Net Wt. 500 lbs)
5 gallon plastic pails (Net Wt. 40 lbs)

Refer to the Safety Data Sheet (SDS) for information on the safe use, handling, and disposal of this product.

DOT Classification: Non-Regulated

Whether you're looking for a replacement product or an ingredient for a specific attribute, give us a call. We can provide assistance based upon your particular formulation requirements and composition; please feel free to contact us.

Please refer to back page for important information

Flexisperse 225
Performance

Low concentration dispersion

The photos on the right illustrate the effectiveness of Flexisperse 225 at stabilizing dilute suspensions of powders.

Each cylinder contains 1.0 gram of iron oxide and 200 ml of deionized water. The cylinder on the left contains 0.04% Flexisperse 225. Each cylinder was shaken 100 times and then left undisturbed for 24 hours. After 24 hours, the cylinder on the left shows minimal sedimentation while the cylinder on the right has clearly settled. Additionally, the anti-soil redeposition characteristics of Flexisperse 225 are demonstrated in this illustration.

Note the cylinder on the left containing the dispersant has minimal residue adhering to the glass above the surface of the liquid whereas the cylinder on the right without dispersant has significant accumulation of deposits.

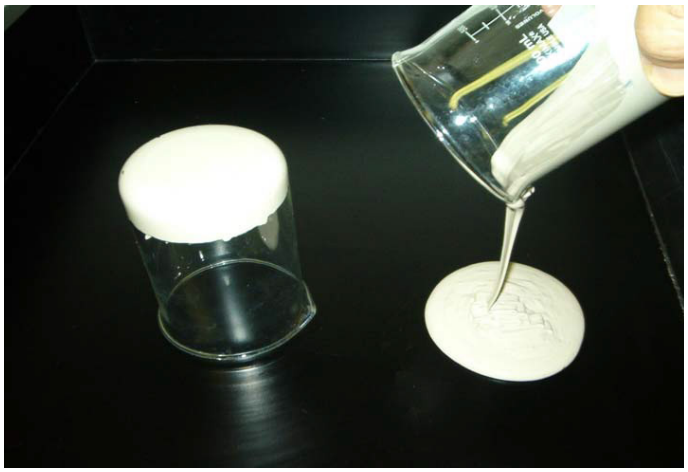
Initial Dispersion

Dispersion @24hrs

High concentration dispersion

The photo on the right illustrates the effectiveness of Flexisperse 225 at reducing the viscosity of high concentration dispersions.

The inverted beaker on the left contains 56% EPK clay in deionized water. The resulting mixture is a rigid paste. The beaker on the right contains 70% EPK clay in deionized water with the addition of 0.7% Flexisperse 225. The resulting mixture is a low viscosity fluid.



w/o Flexisperse 225 **w/ Flexisperse 225**