



Flexiwet™ HCF-22

Aliphatic solvent soluble surfactant

Overview

- Nonionic fluoroaliphatic polymeric esters in a hydrocarbon carrier
- Characterized by its surface activity in organic solvents, and especially its ability to produce stable foams in low polarity hydrocarbon liquids such as kerosene, diesel, xylene and gas well condensates and crude oils
- Effective at very low concentrations, reducing surface tension of non-polar organic solvents.
- Provides low surface tension in organic coating systems only obtainable with fluorosurfactants
- An excellent wetting, leveling and flow control agent for a variety of solvent-borne and high solids organic polymer coating systems
- Soluble and compatible with most solvent borne polymers, and continues to be active throughout the drying or curing process
- Reduces surface tension and improves penetration performance of high boiling/low VOC solvents

Applications

- Oil & Gas applications:
 - Condensate unloading
 - Paraffin solubilizing
 - Pipeline clearing
- Hydrocarbon soluble surfactant:
 - Reduces surface tension
 - Improves penetration
 - Facilitates drying/cross-linking
- Specialty cleaners
- Penetrating lubricants
- Coatings
- Adhesives
- Caulks and resins
- Enhanced coating weatherability

Technical Information

Flexiwet HCF-22 is a 22% active fluoroaliphatic polymeric ester in a hydrocarbon carrier that is effective at very low concentrations in reducing the surface tension of non-polar organic solvents.

In Oil & Gas applications, Flexiwet HCF-22 is an effective hydrocarbon foaming agent and paraffin solubilizer in non-polar solvents, and can increase the interfacial tension between hydrocarbon and salt solutions for demulsifying and desalting applications.

As a Stimulation Additive, Flexiwet HCF-22 is an efficient gas well condensate foaming agent for unloading or deliquification, and can be used for clearing hydrocarbons from pipelines and other vessels used for transporting oil and gas.

Use Flexiwet HCF-22 at concentrations of 0.5-2% to produce stable foam in d-limonene, and in aliphatic solvents such as kerosene, diesel and other hydrocarbons.

As an aliphatic solvent soluble surfactant, Flexiwet HCF-22 controls surface tension in organic systems during the application of a solvent based coating and also during the dynamic phase of drying and resin cross-linking of solvent based urethane coatings, specialty inks, and adhesive systems.

Formulary

Typical recommended use-concentrations range from 0.5-2% by weight

Typical Properties

PROPERTY	VALUE
Appearance	Clear to slightly hazy liquid
Color	Colorless to light yellow
Odor	Mild solvent
Ionic character	Nonionic
Solubility	<1% in water, alcohol, etc. >80% in xylenes, heptane, etc.
Total solids, %	22.0±0.2
Density@25°C	0.84±0.04 g/ml
Boiling Point	350-440°F/ 170-225°C
Flash point (TCC)	104°F/40°C
Storage	Gels at 9°F/-13°C Warm to 40°F/4°C to restore
Shelf life	12 months

Packaging and Handling

Flexiwet HCF-22 is available in:
55 gallon steel drums (Net Wt. 350 lbs)
5 gallon plastic pails (Net Wt. 32 lbs)

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

DOT Proper Shipping Name: Petroleum Distillates, N.O.S., Combustible Liquid UN 1268, PG III

Note: In containers of 119 gallons or less, this product is not regulated by DOT

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

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Stimulation additive:

Unlike hydrocarbon surfactants, Flexiwet HCF-22 has the ability to reduce the surface tension of low polarity organic liquids such as kerosene, diesel, xylene, gas well condensate and crude oils, resulting in decreases in surface tension and formation of foam. Soluble in hydrocarbon solvents, Flexiwet HCF-22 has advantages over water-based foams in the market for use in water-sensitive formations.

Foams have many applications in oil and gas field. They are used in drilling fluids, fracturing fluids and enhancing oil recovery, for clearing hydrocarbons from pipelines and other vessels used for transporting oil and gas. Foam is also widely used as an efficient means for deliquifying gas wells. As a foaming agent, Flexiwet HCF-22 produces foam with much lower density than the bulk liquid, for transporting condensate to the surface in gas wells with very low gas rates. In fracture stimulation operations, Flexiwet HCF-22 hydrocarbon or xylene foam is used for paraffin and asphaltene removal. When used in water sensitive formations, Flexiwet HCF-22 extends reach, benefits proppant transport, and controls leak-off control with improved recovery of fracture liquid. Also, unlike hydrocarbon surfactant systems, Flexiwet HCF-22 has little potential to cause emulsions and may be used to enhance the demulsification of water/oil sludge mixtures.

Flexiwet HCF-22 performance can be enhanced by combining with other materials such as Flexiwet SSE, an effective hydrocarbon soluble surfactant for solubilizing paraffins and foaming aliphatic and aromatic hydrocarbons.

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