



AQF-2™

Foaming Agent

Description AQF-2™ foaming agent is an anionic surfactant. AQF-2 foaming agent can be added to fresh water for air/foam, air/gel-foam, or mist drilling applications.

Applications/Functions *The use of AQF-2 foaming agent helps assist and promote the following:*

- Enhance the efficiency of cuttings removal
- Increase the ability to lift large volumes of water
- Improve hole-cleaning capability of the airstream
- Reduce the sticking tendencies of wet clays, thereby minimizing the risk of mud rings and wall packing
- Reduce erosion of poorly consolidated formations
- Provide a technique for drilling in zones with lost circulation
- Increase borehole stability
- Reduce air-volume requirement

- Advantages**
- NSF/ANSI Standard 60 certified
 - Elevated flash point for easier shipping
 - High quality, high expansion foam with a consistency similar to shaving foam
 - High stability with excellent retention time
 - Proven product for multi-discipline application

Typical Properties

Appearance	Light yellow, transparent liquid
Specific gravity	1.038
pH (10% solution)	6.5 – 8.5
Flash point, °F, (°C)	142, (61)

Recommended Treatment

Approximate Amounts of AQF-2 Agent Added to Injection Water

% by Volume	Amount/100 gal	Amount/bbl	Liters/m ³
0.5 - 2	0.5 - 2 gallons	1.5 - 7 pints	5 - 20

**Recommended
Treatment
(Continued)**

Product Make-up for Air Drilling Injection Slurries				
Main Ingredient of Injection Slurry	Water (gallons)	QUIK-GEL® viscosifier (pounds)	QUIK-TROL® polymer (pounds)	AQF-2™ foaming agent (% by volume)
Foam Drilling System	100	0.5 - 2.0
<i>Mixing/Injection Procedure</i>				
Add AQF-2 agent to injection water. Inject into the air stream at a rate necessary to maintain hole stability and penetration rate. Increase amount of AQF-2 agent as required to compensate for downhole water dilution.				
Stiff-Foam Drilling System	100	...	0.5 - 1	0.5 - 2.0
<i>Mixing/Injection Procedure</i>				
Mix polymer with water before adding AQF-2 foaming agent. 1-2 pints of EZ-MUD® polymer may be used as a substitute for QUIK-TROL polymer. Inject into the air stream at a rate necessary to maintain hole stability and penetration rate.				
Gel-Foam Drilling System	100	12 – 15	1	0.5 - 1.0
<i>Mixing/Injection Procedure</i>				
Mix viscosifier and polymer with water before adding AQF-2 agent. Inject into the air stream at a rate necessary to maintain hole stability and penetration rate. Resulting viscosity is 32-40 sec/qt as measured by Marsh Funnel.				
Conversion Table				
Pounds per 100 gallons		Pounds per Barrel		Kilograms per meter ³
0.5		0.21		0.6
1.0		0.42		1.2
12		5		14.3
15		6.5		18.5

Note:

Close product container immediately after use to avoid gelation of remaining AQF-2 foaming agent.

Note:

Foam and effluent must never be discharged into a stream or waterway. It is the contractor's responsibility to contain foam/effluent, cuttings, and production water. Utilize hay bales, temporary containment ponds or systems to isolate the foam.

Packaging AQF-2 foaming agent is packaged in 5-gal (19-liter) plastic containers or in 55-gal (208 liter) drums.

Availability AQF-2 foaming agent can be purchased through any Baroid Industrial Drilling Products Retailer. To locate the Baroid IDP retailer nearest you contact the Customer Service Department in Houston or your area IDP Sales Representative.

Baroid Industrial Drilling Products

Product Service Line, Halliburton

3000 N. Sam Houston Pkwy E.

Houston, TX 77032

Customer Service (800) 735-6075 Toll Free (281) 871-4612

Technical Service (877) 379-7412 Toll Free (281) 871-4613
