



# 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 assists and promotes the following:

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

### Advantages

- Y NSF/ANSI Standard 60 certified
- Y Elevated flash point for easier shipping
- Y High quality, high expansion foam with a consistency similar to shaving foam
- Y High stability with excellent retention time
- Y 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 Foaming Agent Added to Injection Water

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

**Recommended  
Treatment  
(Continued)**

<b>Product Make-up for Air Drilling Injection Slurries</b>				
<b>Main Ingredient of Injection Slurry</b>	<b>Water (gallons)</b>	<b>QUIK-GEL® viscosifier (pounds)</b>	<b>QUIK-TROL® polymer (pounds)</b>	<b>AQF-2™ foaming agent (% by volume)</b>
Foam Drilling System	100	...	...	0.5 - 2.0
<i>Mixing/Injection Procedure</i>				
Add AQF-2 foaming 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 foaming 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 emulsion 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 foaming 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 <sup>3</sup>		
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.**

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

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**Availability** AQF-2 foaming agent can be purchased through any Baroid Industrial Drilling Products Distributor. To locate the Baroid IDP distributor 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

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

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

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