



# AQF-2™

## Foaming Agent

### Description

AQF-2™ foaming agent is an anionic surfactant which 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 promotes or assists with 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, minimizing the risk of mud rings and wall packing
- Reduce erosion of poorly consolidated formations
- 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	142°F (61°C)

### 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	0.85-3.4 quarts	5 - 20

**Recommended  
Treatment  
(Continued)**

<b>Approximate Product Make-ups for Air Drilling Injection Slurries</b>				
<b>Injection Slurry</b>	<b>Water (gallons)</b>	<b>QUIK-TROL® GOLD polymer (pounds)</b>	<b>EZ-MUD® liquid polymer (pints)</b>	<b>AQF-2™ foaming agent (% by volume)</b>
Air-Foam Drilling System	100	0 - 1	0 - 2	0.5 - 2
<p><b>Foam mixing/injection procedure:</b></p> <p>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.</p> <p><b>To build a stiff-foam drilling system:</b></p> <p>Mix QUIK-TROL GOLD polymer (0.5-1 pound per 100 gallons) or EZ-MUD liquid polymer (1-2 pints per 100 gallons) with water before adding AQF-2 foaming agent. Inject into the air stream at a rate necessary to maintain hole stability and penetration rate.</p>				
<b>Injection Slurry</b>	<b>Water (gallons)</b>	<b>QUIK-GEL® viscosifier (pounds)</b>	<b>QUIK-TROL® GOLD polymer (pounds)</b>	<b>AQF-2™ foaming agent (% by volume)</b>
Gel-Foam Drilling System	100	12 – 15	1	0.5 - 1
<p><b>Gel-Foam Mixing/Injection Procedure:</b></p> <p>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.</p>				

**Notes:**

- **Close product container immediately after use to avoid gelling of remaining AQF-2 foaming agent.**
- **Foam and effluent must never be discharged into a stream or waterway. It is the end-user'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

<b>Customer Service</b>	(800) 735-6075 Toll Free	(281) 871-4612
<b>Technical Service</b>	(877) 379-7412 Toll Free	(281) 871-4613