



# BAROID 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.