



AQUA-CLEAR® PFD DRY

Dispersant/Thinner

Description AQUA-CLEAR® PFD DRY beaded polymeric dispersant is designed to efficiently remove sediment and mud from producing formations and gravel pack without the use of phosphates. AQUA-CLEAR PFD DRY dispersant is also a highly effective mud thinner.

**Applications/
Functions**

The use of AQUA-CLEAR PFD DRY dispersant promotes the following:

- Dispersion of mud, sediment, and clay from the producing formation and gravel pack in the screened interval
- Reduced viscosity and gel strength of drilling fluids

Advantages

- Phosphate-free
- NSF/ANSI Standard 60 Certified
- Can reduce development time
- Can reduce pumping cost
- Can increase well yield and capacity

**Typical
Properties**

- Appearance
- Ionic Character
- pH of 1% aqueous solution @ 25°C
- Solubility
- Bulk Density
- White Microbead
- Anionic
- 6.5-7.5
- Readily soluble in water
- 0.8 g/cm³

**Recommended
Treatment**

As a Mud Thinner/Dispersant

Water Well Applications:

- To thin mud, begin by adding AQUA-CLEAR PFD DRY at the lowest recommended concentration and increase dispersant concentration as necessary until the desired viscosity is achieved.
- It is not recommended to increase the usage level of AQUA-CLEAR PFD above the highest recommended concentration rate shown below as the ability to effectively transport cuttings from the borehole may be negatively impacted.

Recommended Treatment for Use of AQUA-CLEAR PFD DRY as a Drilling Fluid Thinner/ Dispersant		
lb/bbl	lb/100 gallons	kg/m ³
0.04 – 0.08	0.1 – 0.2	0.12 – 0.24

Recommended Treatment (continued)

Horizontal Directional Drilling (H.D.D.) Applications:

Recommended Treatment for Use of AQUA-CLEAR PFD DRY as a Drilling Fluid Thinner/ Dispersant		
lb/bbl	lb/100 gallons	kg/m ³
0.02 – 0.06	0.05 – 0.15	0.06 – 0.18

- AQUA-CLEAR PFD DRY dispersant can be added to bentonite-based or polymer-based drilling fluid to facilitate dispersion of aggressive clay and shale.
- It is not recommended to increase the usage level of AQUA-CLEAR PFD above the highest recommended concentration rate shown above as the ability to effectively transport cuttings from the borehole may be negatively impacted.

As a Well Development Aid

- Determine volume of water in screen area and double the calculated volume to account for water in gravel pack and formation interface **or** determine the static volume of water and add 50% excess.
- Once the water volume is determined, calculate the required treatment amounts (lbs or kg) of AQUA-CLEAR® PFD DRY dispersant by the following formula:

AQUA-CLEAR PFD DRY dispersant = 0.132% by weight of calculated volume of water

Note: This equates to the following addition rates:

- 5.5 lbs of AQUA-CLEAR PFD DRY per 500 gallons of water
- 1.32 kg of AQUA-CLEAR PFD DRY per m³ of water.
- Mix thoroughly in freshwater before introducing into well.
- The preferable application method utilizes a tremie line, jetting assembly or dual disk surge tool where the product mixture is applied directly into the screened area. If necessary, the AQUA-CLEAR PFD DRY and water solution may be poured into the well but this technique is not the preferred methodology.
- Mixture should be thoroughly blended in the well, then agitated using a surge and swab, jetting, or other development technique repeatedly every two hours for a period of up to 24 hours.
- Procedure can be repeated as necessary
- Pump to waste until turbidity clears up and then connect well to distribution system.

Packaging

AQUA-CLEAR PFD DRY dispersant is packaged in 10-lb (4.5-kg) plastic pails.

Availability

AQUA-CLEAR PFD DRY dispersant 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
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Houston, TX 77032

Customer Service

(800) 735-6075 Toll Free

(281) 871-4612

Technical Service

(877) 379-7412 Toll Free

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