



# PENETROL®

## Wetting Agent

**Description** PENETROL® water miscible, non-ionic wetting agent is designed to counteract the sticking tendencies of clay.

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**Applications/Functions**

- Can reduce or eliminate bit balling
  - Can reduce surface tension of drilling fluid, which allows faster chip removal without continuously grinding the hard shale formations
  - Can improve drilling efficiency by preferentially coating the bottom-hole assembly and drill string
  - Can minimize differential sticking
  - Can increase bit life and reduce drill pipe and bottom-hole assembly wear
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**Advantages**

- Easy to mix
  - Effective in low concentrations
  - Compatible with other Baroid drilling fluid additives
  - Biodegradable
  - NSF/ANSI Standard 60 certified
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**Typical Properties**

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|----------------------------|---------------------|
| • Appearance               | forest green liquid |
| • Specific gravity         | 0.98                |
| • pH (1%) solution         | 9.5                 |
| • Flash point, TOC, °F, °C | >300, (149)         |
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**Recommended Treatment**

***Added uniformly through entire circulation system***

- 1 to 4 quarts of PENETROL wetting agent per 100 gallons of drilling fluid
- 2.5 to 10 liters of PENETROL wetting agent per m<sup>3</sup> of drilling fluid

***As a slug down drill rods to counteract the sticking tendencies of clay***

- 1 to 2 quarts of PENETROL wetting agent per drill rod
- 1 to 2 liters of PENETROL wetting agent per drill rod

***Alternate application***

- Dilute 1 gallon of PENETROL wetting agent with 10 gallons of water and inject one gallon of mixture per minute into the pump suction
  - Dilute 3.8 liters of PENETROL wetting agent with 38 liters of water and inject 3.8 liters of mixture per minute into the pump suction
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**Packaging** PENETROL wetting agent is packaged in 5-gal (19-liter) plastic containers.

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**Availability** PENETROL wetting 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

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