



PENETROL® DRY EU

Surfactant

Description	PENETROL® DRY EU surfactant is used to assist in counteracting the sticking tendencies of encountered clay or shale during drilling operations.						
Applications/Functions	<p><i>The use of PENETROL DRY EU surfactant aids or promotes the following:</i></p> <ul style="list-style-type: none">▪ Reduces and/or minimizes bit balling▪ Improves drilling efficiency by preferentially coating the bottom-hole assembly and drill string▪ Minimizes potential for accretion and agglomeration of cuttings						
Advantages	<ul style="list-style-type: none">▪ Free-flowing granular product▪ Easy to mix and readily dispersible▪ Effective at low concentrations▪ Minimal to no foaming produced during high shear mixing or surface agitation▪ Compatible with other Baroid drilling fluid additives▪ Low aquatic toxicity						
Typical Properties	<table><tr><td>▪ Appearance</td><td>White granules</td></tr><tr><td>▪ Bulk Density, lb/ft³, kg/m³</td><td>40 - 45, 641 - 721</td></tr><tr><td>▪ pH (1.0% Aqueous Solution)</td><td>6.5</td></tr></table>	▪ Appearance	White granules	▪ Bulk Density, lb/ft ³ , kg/m ³	40 - 45, 641 - 721	▪ pH (1.0% Aqueous Solution)	6.5
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Recommended Treatment	<table border="1"><tr><td>Approximate Amounts of PENETROL DRY EU Surfactant Added to Water Based Fluids, kg/m³</td></tr><tr><td>0.5 – 3.0</td></tr></table> <p><i>*1 bbl = 42 U.S. gallons or 0.16 m³</i></p> <ul style="list-style-type: none">▪ It is recommended that Soda Ash (sodium carbonate) be added to the make-up water prior to the addition of PENETROL DRY EU surfactant for reduction of excess calcium and pH adjustment.▪ Introduction of PENETROL DRY EU surfactant requires the user to incorporate the material into the drilling fluid system using a venturi hopper or directly into the vortex of a high-speed stirrer and follow standard order of addition. PENETROL DRY EU should be incorporated only after bentonite and/or polymers have been mixed and fully hydrated.▪ The above are generalized concentrations of PENETROL DRY EU surfactant to be added to water-based drilling fluids. The ultimate usage concentration will be based on local geology, application and mixing efficiency. In the event that further information is needed please refer to the Product Data Sheet or contact your local Baroid IDP representative.	Approximate Amounts of PENETROL DRY EU Surfactant Added to Water Based Fluids, kg/m³	0.5 – 3.0				
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Packaging	PENETROL DRY EU surfactant is packaged in 9 kg re-sealable plastic pails.						
Availability	PENETROL DRY EU surfactant is a regionally sourced product and may not be available through all Baroid Industrial Drilling Products Retailers. To locate the Baroid IDP retailer nearest you contact CEBO Holland						

CEBO Holland, BV
Authorized Retailer, Baroid IDP

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