

# Soltex<sup>®</sup> Potassium Additive



A DIVISION OF CHEVRON PHILLIPS  
CHEMICAL COMPANY LP

Soltex<sup>®</sup> Potassium Additive is a specially prepared potassium asphalt sulfonate made water soluble by a unique sulfonation process. It is a versatile, total mud conditioner that stabilizes shale formations, significantly increases lubricity, and lowers HTHP water loss. Soltex<sup>®</sup> Potassium Additive enhances filter cake properties in both oil-based and water-based muds. Soltex<sup>®</sup> Potassium Additive contributes water-soluble potassium ions to the mud system. This is beneficial in formations that require the specific action of potassium to adequately minimize water-induced clay swelling.

## Special Information

Soltex<sup>®</sup> Potassium Additive is consumed on drilled solids and on the well bore. It is advisable to add 50% more Soltex<sup>®</sup> Potassium Additive one day following the initial treatment to ensure adequate concentration.

## Advantages

- Controlled water and oil solubility to effect best chemical and physical performance
- Minimizes damage to productive formations
- Reacts with shale to prevent or stop sloughing and swelling
- Significantly increases lubricity; either alone or synergistically with small amounts of oils and synthetics
- Environmentally acceptable - is used on land and offshore
- Extremely temperature stable - does not have the softening point typically associated with un-reacted asphaltic additives
- Inhibits dispersion of drilled solids
- Minimal and easily distinguishable fluorescence - does not hamper well logging or core analysis
- Will not leave oil slick, sheen or rainbow on water at offshore locations
- No emulsifiers needed to ensure proper mixing
- Stable in Drilling Applications to 500 °F.

## Cost

Versatility makes Soltex<sup>®</sup> Potassium Additive more cost-effective than materials having limited applications. Total drilling costs can be reduced if well-bore condition is improved.

## Mud Types

Most water-based and all oil-based and synthetic muds

## Mixing Requirements

Conventional hopper when chlorides do not exceed 60,000 ppm. When adding to high salinity systems, pre-wetting Soltex<sup>®</sup> Potassium Additive with fresh water by adding through chemical barrel may give best results. If mixing system requires, DSCo<sup>™</sup> Defoam may be added to prevent surface foam.

## Handling

For specific instruction on handling, refer to the MSDS

## Packaging

50-pound, multiwall paper sacks

Application	Material Needed
Stabilize shale formations	3.0 to 6.0 ppb (9.0 to 17.0 kg/m <sup>3</sup> )
Impart significant lubricity	1.0 to 3.0 ppb (3.0 to 9.0 kg/m <sup>3</sup> )
Reduce torque and drag	1.0 to 3.0 ppb (3.0 to 9.0 kg/m <sup>3</sup> )
Control HTHP fluid loss in water-based & oil-based muds	2.0 to 6.0 ppb (6.0 to 17.0 kg/m <sup>3</sup> )
Produce thin, strong compressible wall cakes	2.0 to 4.0 ppb (6.0 to 11.0 kg/m <sup>3</sup> )
Emulsify oil into water based mud systems	0.5 to 3.0 ppb (2.0 to 9.0 kg/m <sup>3</sup> )
Control shear strengths and increase thermal stability	2.0 to 6.0 ppb (6.0 to 17.0 kg/m <sup>3</sup> )
General hole conditioning (differential sticking, etc.)	2.0 to 6.0 ppb (6.0 to 17.0 kg/m <sup>3</sup> )

Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Drilling Specialties Company does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as federal, state or local laws which may be encountered in the use thereof. Such questions should be investigated by the user.