

# Technical Data Sheet

## BIONIC-C214: stuck pipe spotting fluid

### 1. General Information

**BIONIC-C214** enable spotting fluids to penetrate and crack the water-based mud filter cake with high fluid loss and solids free filtrate **BIONIC-C214** additive is used in diesel oil or in oil-base muds to form a highly effective stuck-pipe spotting fluid.

### 2. Typical Physical properties

Appearance at 20° C	Dark brown liquid
Specific Gravity, 20° C	0.91 ±0.02
pH (1% solution)	6.5-8.5
Solubility at 20° C	Hydrocarbon Soluble
Pour Point, °C	<0
Flash point, CC, °C	>60

*\*please note that the information listed above are typical values and may subject to change without notice.*

### 3. Product application

**BIONIC-C214** is a superior product for preparing a spotting fluid or soak solution for freeing pipe that is differently stuck. **BIONIC-C214** forms a spotting fluid that penetrates and “cracks” the water base filter cake. It acts as a lubricating solution to equalize differential pressure rapidly and reduce the forces required to free differentially stuck pipe.

### 4. Feature and benefits

1. Conventional liquid additive, quick and easy to mix at the rig site.
2. May be used in weighted oil-base fluids where well control considerations require weighted fluid.
3. Results in less time lost due to stuck pipe.
4. The recommended concentration is 1 gal of **BIONIC-C214** for each barrel of spotting fluid to be prepared.

### 5. Storage/Handling

Handle as an industrial chemical, wearing protective equipment and observing the precautions as desired on the transportation and material safety Data Sheet. Because **BIONIC-C214** contains refined oil and is used in oil and oil-base fluids, this product and the spotting fluids formulated with this product should be used in accordance with environmental regulations.

### 6. Health Information

Combustible liquid and vapor, DO not breathe vapors. Store in a location away from sources of heat or ignition.

Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection. Do not get in eyes, on skin or on clothing. In the case of eye contact, immediately flush with plenty of water for at least 15 minutes. In the case of skin contact wash thoroughly with soap and water. Harmful if swallowed. Repeated or prolonged skin contact may cause irritation.

### 7. Material Compatibility

Avoid contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate). May generate heat, fires, explosions and/or toxic vapors. Avoid Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic and sulfonic). May generate heat, splattering or boiling and toxic vapors.

### 8. Packing

**BIONIC-C214** is packaged in 180 kg steel drums, Expiry date is two years after production.

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