

NCS-30[®] ECFTM DRILL STRING COMPOUND

DESCRIPTION

NCS-30® ECF™ is a premium quality, nonmetallic compound containing chemically inert fibers and EXTREME PRESSURE and ANTI-WEAR additives. These are blended into Jet-Lube's biodegradable base grease, which gives a wide temperature range, superior adhesion to wet steel surfaces, resistance to water wash off and the ability to withstand invert and high-pH muds.

FROM AN ENVIRONMENTAL STANDPOINT, NCS-30

ECF is biodegradable, bioaccumulation potential-free and non-toxic to all kinds of life forms tested. This compound has the distinction of being the first compound to achieve a "Yellow" HOCNF rating in the Norwegian sector of the North Sea making it permissible in sensitive drilling areas such as the Barents Sea. It also has the distinction of being the first drilling compound to achieve a substitution warning-free HOCNF rating as well as an "E" classification in the UK sec-tor, simplifying the completion of PON15B applications.

ADVANTAGES

- Biodegradable, non-bioaccumulative and nontoxic
- Contains no metals
- Excellent performance on high-chrome or nickel alloys
- Excellent protection against seizing and galling
- Sticks to wet joints
- Consistent rig floor make-up
- Nonconductive for MWD applications
- Provides maximum protection on Wedge Thread™ drill string connection designs
- Designed for optimum performance on all Rotary-Shouldered connections such as Tool Joints and Drill Collars. It can also be used on premium/proprietary thread designs such as Double-Shouldered, Wedge Thread™*, and other types of mechanical seal designs. It may also be used on certain non-interference tubing thread designs when properly torque compensated.

This product is formulated to contain no detectable, leachable, volatile organics by EPA Test Method 1311-TCLP number SW846 8260B as determined by independent, 3rd party testing. Testing results are available upon request.

* Trademark of TENARIS Hydril Company.

PRODUCT CHARACTERISTICS

Color Beige

Thickener Complex Thickeners
Fluid Type Synthetic & Vegetable

Dropping Point (ASTM D-2265) ≥450°F (232°C)

Specific Gravity, typical 1.36

Density (lb/gal), typical 11.35

Oil Separation (ASTM D-6184) <5.0

WT. % LOSS @ 212°F (100°C)

Flash Point (ASTM D-92) >450°F (232°C)

NLGI Grade $1 - 1\frac{1}{2}$ Penetration @ 77°F 300 - 330

(ASTM D-217)

Copper Strip Corrosion 1A, typical

(ASTM D-4048)
Friction Factor*

Relative to API RP 7G 1.0 (Normal), 1.1 (severe)

(drill strings)

* For proprietary and API connections, consult the connection manufacturer for torques, or test the torque required for proper make-up prior to running. Start drilling with standard Friction factor times torque but if breakout torques are higher than make up torque use the extra 10% factor.

Salt Fog Resistance 5% NaCl >2000 hrs., (ASTM B-117) 20% NaCl >750 hrs. Service Temperature -10°F (-23°C) to

500°F (260°C)

EPA 1311-TCLP Non-Detected

Environmental Rating:

UK CEFAS OCNS Group E

Ospar Commission-HOCNF (Harmonized Offshore Chemical Notification Format) CLASSIFICATION: "Yellow" rating for Norway DENMARK PR-#: 3456194

For package types and part numbers contact sales@jetlube.com.

LIMITED WARRANTY

For warranty information please visit http://www.jetlube.com/pdf/Jet-Lube Warranty.pdf