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# TECHNICAL DATA SHEET

# NCS-30® ECF Biodegradable High Performance Drilling Compound

#### **DESCRIPTION**

NCS-30 ECF is a premium quality, non-metallic compound containing inert fibres, galling preventers, and friction controllers. These are blended into JET-LUBE biodegradable Calcium sulphonate base grease together with EP and AW additives. NCS-30 ECF gives a wide temperature range, superior adhesion to wet steel surfaces and resistance to water wash-off. It has the ability to withstand inverted and high pH muds. NCS-30 ECF significantly reduces down hole makeup as its friction factor rises with load. Full hydraulic joint efficiency is maintained, allowing joint shoulder faces to mate completely without standoff or deformation. NCS-30 ECF is biodegradable, bioaccumulation-free and non-toxic to marine life.

NCS-30 ECF was 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/NL sector, simplifying the completion of PON15B applications. In order to achieve this rating, a thread compound must degrade by more than 60% in the first 28 days of exposure to sea-water. NCS-30 ECF can also be used for the connection of casing and tubing, particularly effective at protecting high chrome and stainless connections; although additional torque may be required for correct makeup depending upon connection design (test a connection before running). It can also be used as an industrial anti-seize compound on even the most gall-prone alloys, due to the absence of graphite.

#### **ADVANTAGES**

- Biodegradable, non-bio accumulative and non-toxic.
- Metal free.
- Excellent performance on high chrome or nickel alloys.
- · Excellent protection against seizing and galling.
- · Sticks to wet joints.
- Consistent rig floor makeup.
- Nonconductive for MWD applications.
- Provides maximum protection on wedge thread drill string connection designs.

#### **FRICTION FACTOR:**

NCS-30 ECF has been designed to utilize the makeup charts in API RP7G on rotary shouldered connections. For premium connection designs such as XTM and HT, utilize the torque figures provided by the manufacturer.

## PRODUCT CHARACTERISTICS

Service Ranges:

Oilfield/Mining/Construction Drilling: -29°C (-20°F) to

260°C (500°F)

Industrial Anti-seize Applications: -54°C (-65°F) to

1317°C (2400°F)

Thickener:	Calcium Sulphonate Complex
Fluid Type:	Petroleum
Dropping Point (ASTM D-566):	>232°C (450°F)
Specific Gravity (TYPICAL):	1,30
NLGI-Grade:	1,5
Oil Separation (ASTM D-6184) Wt. % Loss @ 100°C (212°F):	<3,0
Penetration (IP50/ASTM D-217) @ 25°C (77°F):	290 - 320
Shell 4-Ball (ASTM D-2596)	800
Flash Point (ASTM D-92):	>221°C (430°F)
Copper Strip Corrosion (ASTM D-4048):	1A
Friction Factor* (Relative to API RP 7G):	1,0
Shelf Life:	Five years from manufacture date

\* Many factors such as pipe size, thread geometry, drilling mud contamination, etc. affect the friction factor. This is a relative number and in all applications, experience and prior knowledge should be used to adjust makeup torque accordingly.

### **PACKAGING**

Code	Net contents	Container
33548371	5kg	Pail
28438496	20kg	Pail

#### LIMITED WARRANTY

Jet-Lube (UK) Limited makes the Limited Express Warranty that at the date of delivery, this product shall be free from defects in Jet-Lube (UK) Limited materials and workmanship. This limited Express Warranty is expressly in lieu of any other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose, and of any other obligation on the part of Jet-Lube (UK) Limited. The sole remedy for breach of the Limited Express Warranty shall be the refund of the purchase price. All other liability is negated and disclaimed, and Jet-Lube (UK) Limited shall not be liable for incidental or consequential damages.



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