DOVER Chemical Corporation
A Subsidiary of ICC Industries Inc.

OILFIELD SOLUTIONS

Dover Chemical, a leading chemical producer, offers a line of Doverlube® oilfield chemicals that include well bore and coiled tubing lubricants, corrosion inhibitors, and surfactants.

Dover has been supplying the highest performance downhole drilling and coiled tubing lubricants for over 30 years. Lubricants for drilling off the Louisiana shelf, the challenging Bakken brine of North Dakota's Williston basin, and lubricants to make easy work in produced water of the Permian.

LUBRICANTS FOR DOWNHOLE DRILLING AND COILED TUBING

Product	CoF	% Torque Red	lbs/gal	Application	Pour Pt °F (°C)	Comments
DOWNHOLE DRILLING						
Doverlube **DFA 0938**	0.15	64	8.0	Downhole Drilling	60 (-16)	LC 50
Doverlube **DFA 0938W**	0.10	76	7.9	Downhole Drilling	14 (-10)	Cool Temp
Doverlube **DFA 0938XW**	0.10	76	7.9	Downhole Drilling	-4 (-20)	Cold Temp
Doverlube **DFA 1010**	0.13	55	8.3	Downhole Drilling	65 (18)	Use w/ DFA 600
COILED TUBING						
Doverlube **DFA 1535**	0.10	65	8.5	CT	-31 (-35)	Fresh Water
Doverlube **DFA 1535EM**	0.09	75	8.5	CT	5 (-15)	Produced Water and Divalent Brine
Doverlube **DFA 1540**	0.09	68	8.9	CT	-35 (<-37)	Fresh Water
Doverlube **DFA 1540EM**	0.08	79	8.9	CT	8 (-18)	Produced Water and Divalent Brine

Product	CoF	% Torque Red	lbs/gal	Application	Pour Pt °F (°C)	Comments
ESTERS						
Doverlube **DFA 1121**	0.15	64	8.0	Downhole Drilling	60 (-16)	WBM & OBM; LC 50

Product	CoF	% Torque Red	lbs/gal	Application	Pour Pt °F (°C)	Comments
SULFUR AND CHLORINE						
Doverlube **DFA 277**	0.11	58	9.2	Off Shore LA Shelf	36 (2)	Pass LC 50 Shrimp Test
Doverlube **DFA 3552**	0.13	70	8.2	CT	-40 (-40)	Produced Water and Divalent Brine
Doverlube **DFA 4052**	0.13	70	8.3	CT	-35 (-37)	Produced Water and Divalent Brine

Dover offers a line of oil soluble corrosion inhibitors, and emulsifiers headed by TOFA Imidazoline and a variety of Fatty Acid Alkanolamides. All can be made fully water soluble with the addition of acetic acid.

DFA 600, a polyol fatty ester, is your selection for dispersing fat based lubes, such as DFA 1010, in fresh water systems.

CORROSION INHIBITORS, EMULSIFIERS & SURFACTANTS

Product	Pounds/gal	Imidazoline %	TBN	Acid Value	pH @1%	Comments
Doverhib **DFA 181TO**	7.8	60	250	10 Max	-	Imidazoline (DETA)

Product	Pounds/gal	Vis, Sus, @100 °F	TBN	Acid Value	pH @1%	Comments
Doverhib **DFA 1-TO-22**	8.0	1000	40	5	9.6	1:1 TOFA:DEA
Doverhib **DFA 1-O-23**	8.0	950	45	<5	9.5	1:1 Oleic:DIPA
Doverhib **DFA 2-TO-23**	8.0	1050	115	12	9.5	2:1 TOFA:DIPA
Doverhib **DFA 2-C-22**	8.0	1100	165	30	9.8	2:1 CFA:DEA

Product	Pounds/gal	Vis, Sus, @100 °F	TBN	Acid Value	Pour Pt °F (°C)	Comments
Doverlube **DFA 600**	8.7	260	-	8	65 (18)	Polyol Fatty Ester

ASPHALTENE INHIBITOR AND POUR POINT IMPROVERS

Product	Pounds/gal	Vis, Sus, @100 °F	TBN	Total N2	Pour Pt	Comments
Doversperse **DFA H1035S**	8.0	100	62	2.2	-	Asphaltene Inhibitor
Doverflo **DFA 150**	7.3	150	-	-	-40C	Pour Point Improver

SERVICE | Focusing Extraordinary Resources on Customer Needs

Dover Chemical Corporation is ready to provide timely assistance to answer your questions on Drilling-Fluid and Oilfield Chemical additives.

The Dover laboratory is equipped with Ofite Lubricity meters, Vertical Drawbead tester, Cold Finger simulator testing, and soon to be Cold Finger test unit. The Dover mud lab has continued to improve on existing product lines, and develop new lubricants, corrosion inhibitors and emulsifiers to keep up with the constant changes in the Gas & Oil market.

Dover has teamed with Ravago Chemical, a globally recognized distributor of chemicals in a variety of markets, including oilfield. Ravago will work with Dover customers to inventory products you need, offering delivery on short lead time, what you want and when you want it.

Our Customer Service team is second to none. If they cannot answer your questions, they will point you in the right direction.

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