Surface tension and CMC of Shell NEODOL® ethoxylates

Aqueous solutions of non-ionic surfactants exhibit significantly lower surface tensions and consequently better wetting characteristics than water alone. As ethoxylate concentration increases in very dilute solutions, surface tension decreases. This effect continues until a particular concentration is reached above which the surface tension remains nearly constant. This particular concentration is termed the "critical micelle concentration" (CMC) of the ethoxylate. In emulsification and cleaning applications, an ethoxylate generally is much less effective at concentrations below the CMC value.

CMC - derived from surface tension (dyne/cm) versus concentration - measured at 24 °C in deionised water

CMC, %m/m	
	CMC
Shell NEODOL 91-6	0.029
Shell NEODOL 91-8	0.038
Shell NEODOL 25-7	0.0016
Shell NEODOL 135-7	0.0016
Shell NEODOL 45-7	0.00066

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