

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/8/2018
Job End Date:	9/20/2018
State:	Texas
County:	Winkler
API Number:	42-495-34084-00-00
Operator Name:	MECO IV, LLC
Well Name and Number:	UL 21 WAR-WINK 47 2H
Latitude:	31.66980000
Longitude:	-103.17939300
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,439
Total Base Water Volume (gal):	15,478,412
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
M300B	Schlumberger	Water Treatment Microbiocide					
				Listed Below			microbiocide
J627	Schlumberger	Friction Reducer					
				Listed Below			Friction Reducer

H015	Schlumberger	Acid					
				Listed Below			Acid
B600-100	Schlumberger	100-Mesh Standard Fracturing Sand B600					
				Listed Below			100 mesh
A286	Schlumberger	Acid Corrosion Inhibitor					
				Listed Below			Inhibitor
B526†	Schlumberger	Non-Emulsifying Agent					
				Listed Below			Non-Emulsifier
L058	Schlumberger	Iron Control Agent					
				Listed Below			Iron Control
F114	Schlumberger	Surfactant					
				Listed Below			Surfactant
B315F	Schlumberger	Water Friction Reducing Agent B315F					
				Listed Below			FR
B600-4070	Schlumberger	Propping Agent					
				Listed Below			sand

Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.

			Water (Including Mix Water Supplied by Client)*	7732-18-5		93.16928	
			Quartz, Crystalline silica	14808-60-7	97.55323	6.66359	
			Hydrochloric acid	7647-01-0	2.09090	0.14282	
			Glutaraldehyde	111-30-8	0.09137	0.00624	
			Polyethylene glycol monohexyl ether	31726-34-8	0.05685	0.00388	
			Distillates, petroleum, hydrotreated light	64742-47-8	0.04776	0.00326	
			2-Propenoic acid, polymer with 2-propenamide, sodium salt	25987-30-8	0.03659	0.00250	
			Propan-2-ol	67-63-0	0.02802	0.00191	
			Ammonium Sulphate	7783-20-2	0.02683	0.00183	
			Acrylamide/ammonium acrylate copolymer	26100-47-0	0.01873	0.00128	
			Sodium erythorbate	6381-77-7	0.01689	0.00115	
			Ammonium chloride	12125-02-9	0.01171	0.00080	
			Fatty acid, tall-oil reaction products with acetophenone	68188-40-9	0.00999	0.00068	
			Alcohols, C12-C16, ethoxylated	68551-12-2	0.00868	0.00059	
			Isodecanol w/6-7 Moles Ethylene Oxide	26183-52-8	0.00560	0.00038	
			Alcohols, C12-15-branched and linear, ethoxylated propoxylated	120313-48-6	0.00488	0.00033	
			Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00474	0.00032	
			Cinnamaldehyde	104-55-2	0.00366	0.00025	
			Alcohols, C12-15, ethoxylated propoxylated	68551-13-3	0.00366	0.00025	

			Poly(oxy-1,2-ethanediyl),.alpha.-(4-nonylphenyl)-.omega.-hydroxy, branched	127087-87-0	0.00366	0.00025	
			Sorbitan monooleate	1338-43-8	0.00234	0.00016	
			Ethoxylated oleic acid	9004-96-0	0.00234	0.00016	
			Alcohols, C11-14-iso-, C13-rich, ethoxylated*	78330-21-9	0.00175	0.00012	
			Sorbitan monooleate, ethoxylated	9005-65-6	0.00146	0.00010	
			Polymer of fatty acid	Proprietary	0.00122	0.00008	TEST - Trade Secret Texas Comment
			Amines, tallow alkyl, ethoxylated	61791-26-2	0.00107	0.00007	
			Urea	57-13-6	0.00085	0.00006	
			Methanol (impurity)	67-56-1	0.00091	0.00006	
			Sorbitol Tetraoleate	61723-83-9	0.00070	0.00005	
			2-Propenoic acid, ammonium salt	10604-69-0	0.00057	0.00004	
			Sodium sulfocyanate	540-72-7	0.00061	0.00004	
			Amines, dicoco alkylmethyl	61788-62-3	0.00047	0.00003	
			Dodecyl poly (oxyethylene) ether	9002-92-0	0.00045	0.00003	
			Alcohols, C10-C16, ethoxylated	68002-97-1	0.00047	0.00003	
			Prop-2-enamide	79-06-1	0.00023	0.00002	
			Alcohols, C12-C14, ethoxylated	68439-50-9	0.00035	0.00002	
			C14 alpha olefin ethoxylate	84133-50-6	0.00035	0.00002	
			Glycols, polyethylene, monotetradecyl ether	27306-79-2	0.00032	0.00002	
			Sodium hydroxide	1310-73-2	0.00004		

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)