

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/15/2017
Job End Date:	11/30/2017
State:	Texas
County:	Winkler
API Number:	42-495-33710-00-00
Operator Name:	XTO Energy/ExxonMobil
Well Name and Number:	University Blk 20 #1307H
Latitude:	31.70421100
Longitude:	-103.27715900
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	12,018
Total Base Water Volume (gal):	17,365,579
Total Base Non Water Volume:	441,329



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
Water	Operator	Base Carrier Fluid	Water	7732-18-5	100.00000	94.15808	
Sand	Multiple Suppliers	Proppants	Silicon Dioxide	14808-60-7	100.00000	4.99716	
SLC,SDC,TLC,THS,PowerProp,OptiProp,SpeakerProp,CoolSet	Sanrol Proppants	Proppants	Crystalline Silica(Quartz)	14808-60-7	98.00000	0.51096	
			Phenol-formaldehyde Novolak Resin	9003-35-4	5.00000	0.02607	
10.0% Hydrochloric Acid	Reagent	Scale Dissolver	Water	7732-18-5	90.00000	0.11528	
			36% Hydrochloric Acid	7647-01-0	10.00000	0.01281	
FR-630	SNF Inc.	Friction Reducers	Water	7732-18-5	48.00000	0.03565	
			Distillates(petroleum), hydrotreated light	64742-47-8	30.00000	0.02228	
			2-Propenoic acid polymer with acrylamide, sodium salt	25987-30-8	30.00000	0.02228	
			Buffering agents	Proprietary	22.00000	0.01634	

			Alcohols, C11-14-iso-,C13-rich, ethoxylated	78330-21-9	5.00000	0.00371	
			Proprietary surfactant package	Proprietary	5.00000	0.00371	
			Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched	69011-36-5	3.00000	0.00223	
			Acrylamide(as residual)	79-06-1	0.10000	0.00007	
SG-15G	ACE Completions	Gelling Agents					
			Petroleum Distillate	64742-47-8	60.00000	0.04306	
			Guar Gum	9000-30-0	50.00000	0.03588	
			Surfactant	Proprietary	10.00000	0.00718	CAS # Proprietary
			Bentonite Clay	Proprietary	10.00000	0.00718	CAS # is Proprietary
15% Hydrochloric Acid	Reagent	Scale Dissolver					
			Water	7732-18-5	85.00000	0.02972	
			36% Hydrochloric Acid	7647-01-0	15.00000	0.00525	
FR-601	SNF	Friction Reducers					
			Water	7732-18-5	60.00000	0.00688	
			Isoparaffinic Solvent	64742-47-8	45.00000	0.00516	
			Nonylphenol	9016-45-9	10.00000	0.00115	
			Copolymer of acrylamide and sodium acrylate	25987-30-8	10.00000	0.00115	
			Sorbitan Monooleate	1338-43-8	10.00000	0.00115	
			Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched	69011-36-5	3.00000	0.00034	
FE-4	Finoric LLC	Iron Controller / Reducers					
			Citric Acid Annhydrous	77-92-9	52.00000	0.00062	
			Water	7732-18-5	52.00000	0.00062	
GB-2	Multiple Suppliers	Gel Breakers/Delayed Breakers					
			Ammonium Persulfate	7727-54-0	100.00000	0.00113	
I-123	Finoric LLC	Acid Corrosion Inhibitors					
			Ethylene Glycol	107-21-1	40.00000	0.00013	
			N,N-Dimethylformamide	68-12-2	20.00000	0.00007	
			1-Decanol	112-30-1	10.00000	0.00003	
			2-Butoxyethanol	111-76-2	10.00000	0.00003	
			Cinnamaldehyde	104-55-2	10.00000	0.00003	
			Tar based, quinoline derived, benzyl chloride-quaternized	72480-70-7	10.00000	0.00003	
			Ethoxylated Nonylphenol	68412-54-4	10.00000	0.00003	
			1-Octanol	111-87-5	2.50000	0.00001	
			Isopropyl Alcohol	67-63-0	2.50000	0.00001	
			Triethyl Phosphate	78-40-0	2.50000	0.00001	
NE-227	ACE Completions	Non and De-Emulsifiers					
			Water	7732-18-5	90.00000	0.00014	
			Proprietary	Proprietary	15.00000	0.00002	Proprietary Data
			Alcohol	68609-68-7	5.00000	0.00001	

		Poly(oxy-1,2-ethanediyl), alpha hexyl-omega-hydroxy	31726-34-8	5.00000	0.00001	
		Isotridecanol, ethoxylated	9043-30-5	5.00000	0.00001	
		Solvent Naptha(Petroleum), Heavy Aromatic	64742-94-5	1.00000	0.00000	

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

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

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)