

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/31/2017
Job End Date:	4/6/2017
State:	Texas
County:	Ward
API Number:	42-475-37165-00-00
Operator Name:	Jagged Peak Energy
Well Name and Number:	UTL 38-17-2H
Latitude:	31.54885300
Longitude:	-103.20600900
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,439
Total Base Water Volume (gal):	12,949,230
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
Water	JPE	Carrier/Base Fluid	Water	7732-18-5	100.00000	91.88222	None
Sand (Proppant)	Keane	Proppant	Crystalline Silica, Quartz	14808-60-7	100.00000	7.45029	None
15% HCL	Keane	Acid	Water	7732-18-5	85.00000	0.34972	None
			Hydrochloric Acid	7647-01-0	15.00000	0.06171	None
KFR-12	Keane	Friction Reducer	Distillates (petroleum), hydrotreated light	64742-47-8	45.00000	0.04874	None
			Alcohols, C12-15-branched and linear, ethoxylated, propoxylated	120313-48-6	5.00000	0.00542	None
KFE-14	Keane	Surfactant	dipropylene glycol, monomethyl ether	34590-94-8	30.00000	0.02879	None
			Citrus terpenes	68647-72-3	10.00000	0.00960	None
BIOC11139A	Keane	Biocide	benzyl-(C12-C16 alkyl)-dimethylammonium chloride	68424-85-1	30.00000	0.01380	None
			glutaraldehyde	111-30-8	10.00000	0.00460	None

			ethanol	64-17-5	5.00000	0.00230	None
KGBO-1	Keane	Breaker					
			Sodium perborate tetrahydrate	10486-00-7	95.00000	0.00263	None
KWG-7L	Keane	Gelling Agent					
			alcohols, C2-33, manuf. of, by-products from, overheads	876065-86-0	60.00000	0.00077	None
			Guear Gum	9000-30-0	50.00000	0.00064	None
			Proprietary	Proprietary	5.00000	0.00006	None
			Proprietary	Proprietary	3.00000	0.00004	None
			Proprietary	Proprietary	3.00000	0.00004	None
KAI-12	Keane	Corrosion Inhibitor					
			Methanol	67-56-1	90.00000	0.00057	None
			Alcohols, C7-9-iso-, C8-rich	68526-83-0	5.00000	0.00003	None
			fatty imidazoline	61790-69-0	5.00000	0.00003	None
			prop-2-yn-1-ol	107-19-7	5.00000	0.00003	None
			propan-2-ol	67-63-0	5.00000	0.00003	None
			xylene	1330-20-7	5.00000	0.00003	None
			ethylbenzene	100-41-4	1.00000	0.00001	None
Kvert-500	Keane	Divering Agent					
			Proprietary	Proprietary	100.00000	0.00070	None
KS-17	Keane	Surfactant					
			Amine sulfonate	26836-07-7	10.00000	0.00004	None
			ethylene/propylene oxide polymer	Proprietary	10.00000	0.00004	None
			Alcohol	68609-68-7	5.00000	0.00002	None
			alcohols, C11-14-iso-,C13- rich, ethoxylated	78330-21-9	5.00000	0.00002	None
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.							
Other Chemical(s)	Listed Above	See Trade Name(s) List					
			Hydrochloric Acid	7647-01-0	15.00000	0.06171	
			Citrus terpenes	68647-72-3	10.00000	0.00960	
			Alcohols, C12-15-branched and linear, ethoxylated, propoxylated	120313-48-6	5.00000	0.00542	
			glutaraldehyde	111-30-8	10.00000	0.00460	
			ethanol	64-17-5	5.00000	0.00230	
			Guear Gum	9000-30-0	50.00000	0.00064	
			Proprietary	Proprietary	5.00000	0.00006	
			ethylene/propylene oxide polymer	Proprietary	10.00000	0.00004	
			Proprietary	Proprietary	3.00000	0.00004	
			Proprietary	Proprietary	3.00000	0.00004	
			prop-2-yn-1-ol	107-19-7	5.00000	0.00003	
			fatty imidazoline	61790-69-0	5.00000	0.00003	
			propan-2-ol	67-63-0	5.00000	0.00003	
			xylene	1330-20-7	5.00000	0.00003	
			Alcohols, C7-9-iso-, C8-rich	68526-83-0	5.00000	0.00003	

		Alcohol	68609-68-7	5.00000	0.00002
		alcohols, C11-14-iso-,C13- rich, ethoxylated	78330-21-9	5.00000	0.00002
		ethylbenzene	100-41-4	1.00000	0.00001

* 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)