

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	4/24/2019
Job End Date:	6/16/2019
State:	Texas
County:	Midland
API Number:	42-329-42604-00-00
Operator Name:	Chevron USA Inc.
Well Name and Number:	0021WB
Latitude:	31.90764444
Longitude:	-102.15512139
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	9,595
Total Base Water Volume (gal):	34,587,709
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
Fresh Water	Operator	Carrier Fluid					
			Water	7732-18-5	100.00000	89.39127	None
Proppant (Sand)	Keane	Propping Agent					
			Crystalline Silica, quartz	14808-60-7	100.00000	9.82433	None
15% HCl	Keane	Acid					
			Water	7732-18-5	85.00000	0.44662	None
15% HCl	Keane	Acid					
			Hydrochloric Acid	7647-01-0	15.00000	0.07882	None
KWG-111D	Keane	Gelling Agent					
			Guar gum	9000-30-0	95.00000	0.05579	None
KFR-22	Keane	Friction Reducer					
			Proprietary Polymer	Proprietary	30.00000	0.03772	None
KFR-22	Keane	Friction Reducer					
			Distillates, Petroleum, Hydrotreated Light	64742-47-8	30.00000	0.03772	None
BIOC11139A	Keane	Biocide					
			benzyl-(C12-C16 alkyl)-dimethylammonium chloride	68424-85-1	30.00000	0.00670	None
KFR-22	Keane	Friction Reducer					

			Proprietary Surfactant Blend	Proprietary	5.00000	0.00629	None
KSI-20	Keane	Scale Inhibitor					
			Methanol	67-56-1	15.00000	0.00320	None
KS-17	Keane	Surfactant					
			ethylene/propylene oxide polymer	Proprietary	10.00000	0.00238	None
KS-17	Keane	Surfactant					
			Amine sulfonate	26836-07-7	10.00000	0.00238	None
BIOC11139A	Keane	Biocide					
			Glutaraldehyde	111-30-8	10.00000	0.00223	None
KWBO-2	Keane	Breaker					
			Sodium persulfate	7775-27-1	100.00000	0.00219	None
KSI-20	Keane	Scale Inhibitor					
			Phosphonic acid	Proprietary	10.00000	0.00214	None
KFEAC-20	Keane	Iron control					
			acetic acid	64-19-7	50.00000	0.00143	None
KS-17	Keane	Surfactant					
			Alcohol	68609-68-7	5.00000	0.00119	None
KS-17	Keane	Surfactant					
			alcohols, C11-14-iso-,C13- rich, ethoxylated	78330-21-9	5.00000	0.00119	None
KDF-3	Keane	Defoamer					
			This material is not hazardous under the criteria of the federal OSHA Hazard Communication Standard 29CFR 1910.1200.	Proprietary	100.00000	0.00113	None
BIOC11139A	Keane	Biocide					
			ethanol	64-17-5	5.00000	0.00112	None
KSI-20	Keane	Scale Inhibitor					
			nitrilotrimethylenetris (phosphonic acid)	Proprietary	5.00000	0.00107	None
KFEAC-20	Keane	Iron control					
			citric acid	77-92-9	30.00000	0.00086	None
KAI-12	Keane	Corrosion inhibitor					
			Methanol	67-56-1	90.00000	0.00072	None
KAI-12	Keane	Corrosion inhibitor					
			Alcohols, C7-9-iso-, C8-rich	68526-83-0	5.00000	0.00004	None
KAI-12	Keane	Corrosion inhibitor					
			isopropyl alcohol	67-63-0	5.00000	0.00004	None
KAI-12	Keane	Corrosion inhibitor					
			fatty imidazoline	61790-69-0	5.00000	0.00004	None
KAI-12	Keane	Corrosion inhibitor					
			prop-2-yn-1-ol	107-19-7	5.00000	0.00004	None
KAI-12	Keane	Corrosion inhibitor					
			xylene	1330-20-7	5.00000	0.00004	None
KAI-12	Keane	Corrosion inhibitor					

			ethylbenzene	100-41-4	1.00000	0.00001	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.

* 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)