

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/9/2013
Job End Date:	9/13/2013
State:	Texas
County:	Reagan
API Number:	42-383-38141-00-00
Operator Name:	Pioneer Natural Resources
Well Name and Number:	UNIVERSITY 1-28 1H
Longitude:	-101.72884750
Latitude:	31.17976570
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	8,140
Total Base Water Volume (gal):	6,961,290
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	Pioneer Natural Resources	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	87.14253	
SAND (WHOLE GRAIN)	Pioneer Natural Resources Pumping Services LLC	Proppant					
			Crystalline Silica Quartz	14808-60-7	99.50000	12.15007	
POLYfrac Alpha M-4.0	Pioneer Natural Resources Pumping Services LLC	Gelling Agent					
			Petroleum distillate	64742-47-8	55.00000	0.12712	
			Guar Gum	9000-30-0	50.00000	0.11556	
			Clay	14808-60-7	5.00000	0.01156	
			Surfactant	68439-51-0	1.00000	0.00231	
Hydrochloric Acid, 33-40%	Pioneer Natural Resources Pumping Services LLC	Stimulation					
			Hydrogen chloride	7647-01-0	40.00000	0.08573	
PXL-120	Pioneer Natural Resources Pumping Services LLC	Crosslinker					
			Potassium hydroxide (CESI)	1310-58-3	50.00000	0.03231	
			Ethylene glycol	107-21-1	40.00000	0.02585	

			Boric acid	10043-35-3	25.00000	0.01616	
Product 6191X	Pioneer Natural Resources Pumping Services LLC	Surfactant					
			Isodecylalcohol, ethoxylated	61827-42-7	30.00000	0.02606	
			Quaternary Ammonium compound	Proprietary	10.00000	0.00869	Corsitech, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Curtis Sitz, 713-423-7899
			Quaternary Ammonium Salt	Proprietary	5.00000	0.00434	Corsitech, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Curtis Sitz, 713-423-7899
PROCAP MC-AP	Pioneer Natural Resources Pumping Services LLC	Gel Breaker					
			Ammonium persulfate	7727-54-0	76.00000	0.00463	
			Cured Resin	Proprietary	24.00000	0.00146	Fritz Industries, 500 Sam Houston Road, Mesquite, TX 75149. Contact: Laurie Meeks, 972-285-5471
StimLube W	Pioneer Natural Resources Pumping Services LLC	Friction Reducer					
			Hydrotreated Light Distillate	64742-47-8	30.00000	0.00604	
KSIW-624	Pioneer Natural Resources Pumping Services LLC	Scale Inhibitor					
			Methanol	67-56-1	15.00000	0.00273	
			Polyphosphoric acids, esters with triethanolamine	68131-71-5	15.00000	0.00273	
X-Corr HT	Pioneer Natural Resources Pumping Services LLC	Corrosion Inhibitor					
			Isopropyl alcohol	67-63-0	60.00000	0.00153	
			Cinnamaldehyde	104-55-2	30.00000	0.00077	
			Laury Alcohol Ethoxylate	68551-12-2	30.00000	0.00077	
Versene * Powder Chelating Agent	Pioneer Natural Resources Pumping Services LLC	Scale Inhibitor					
			tetrasodium ethylenediamine tetraacetate	64-02-8	83.00000	0.00089	
			Sodium hydroxyacetate	2836-32-0	6.50000	0.00007	
			Nitrilotriacetate, trisodium salt (NTA)	5064-31-3	5.00000	0.00005	
			Trisodium ethylenediaminetriacetate	19019-43-3	3.00000	0.00003	
			Sodium hydroxide	1310-73-2	2.50000	0.00003	
			Disodium Ethylenediaminediacetate	38011-25-5	2.00000	0.00002	
Sodium Erythorbate	Pioneer Natural Resources Pumping Services LLC	Iron Control					
			Sodium erythorbate	6381-77-7	100.00000	0.00081	

KCW-1701	Pioneer Natural Resources Pumping Services LLC	Clay stabilizer					
			Methanol	67-56-1	18.00000	0.00009	
			Tetramethylammonium chloride	75-57-0	15.00000	0.00007	
Chemical Frac Tracer	ProTechnics	Diagnostics					
			Water	7732-18-5	91.00000	0.00006	
			Sodium Salt	Proprietary	10.00000	0.00001	Regulatory Compliance (713) 328-2320
T-734 Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	86.70000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Chemical Tracer	Proprietary	13.30000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-162a Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	86.70000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Chemical Tracer	Proprietary	13.30000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-718 Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	86.70000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Chemical Tracer	Proprietary	13.30000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-731 Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	86.70000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Chemical Tracer	Proprietary	13.30000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-735 Taggent	Tracerco	Diagnostics					
			Chemical Tracer	Proprietary	86.70000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Organic Carrier	Proprietary	13.30000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-716 Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	94.90000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Chemical Tracer	Proprietary	5.10000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-161b Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	95.60000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769

			Chemical Tracer	Proprietary	4.40000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-720 Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	95.60000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Chemical Tracer	Proprietary	4.40000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-163a Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	96.30000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Chemical Tracer	Proprietary	3.70000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-168c Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	97.00000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Chemical Tracer	Proprietary	3.00000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-168a Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	97.00000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Chemical Tracer	Proprietary	3.00000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
T-164c Taggent	Tracerco	Diagnostics					
			Organic Carrier	Proprietary	97.00000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
			Chemical Tracer	Proprietary	3.00000	0.00000	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769
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 Chemicals					
			Water	Proprietary		0.14359	Corsitech, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529
			Water	Proprietary		0.05833	Corsitech, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529
			Acrylamide Polymer - TS	Proprietary		0.02013	CESI Chemical, 1004 S. Plainsman Road, Marlow OK, 73055. Contact: Jason White, 580-658-6608
			Water	Proprietary		0.01939	Corsitech, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529

			Water	Proprietary		0.01437	Corsitech, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529
			2-hydroxy-N,N-bis(2-hydroxyethyl)-N-methylethanaminium chloride - TS	7006-59-9		0.00635	
			2-Propanol - TS	67-63-0		0.00100	
			Quaternary Ammonium compounds, dicoco alkylmethyl, chlorides - TS	61789-77-3		0.00091	
			Polyphosphoric acid - TS	8017-16-1		0.00073	
			Fatty Acids, tall oil reaction products with acetophenone, formaldehyde and thiourea, hydrochlorides - TS	68188-40-9		0.00066	
			Polycarboxylic acid, sodium salt - TS	Proprietary		0.00055	Kel-Tech, Inc, PO Box 11383, Midland TX 79702. Contact: Dennis Wallace, 432-684-4700
			Triethanolamine - TS	102-71-6		0.00055	
			Water	Proprietary		0.00033	Corsitech, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529
			2-Propanol - TS	67-63-0		0.00022	
			tetrasodium ethylenediamine tetraacetate - TS	64-02-8		0.00019	
			Ethox CO-30 - TS	61791-12-6		0.00018	
			Tall oil, ethoxylated - TS	65071-95-6		0.00010	
			Triethanolamine hydrochloride - TS	637-39-8		0.00009	
			Triethanolamine - TS	102-71-6		0.00009	
			Water	Proprietary		0.00009	Corsitech, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529
			(2-Hydroxyethyl) trimethylammonium chloride - TS	67-48-1		0.00006	
			Amines, dicoco alkylmethyl - TS	61788-62-3		0.00003	
			Amines, dicoco alkylmethyl, Hydrochloride - TS	Proprietary		0.00003	Corsitech, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Curtis Sitz, 713-423-7899
			Sodium hydroxyacetate - TS	2836-32-0		0.00001	
			Sodium hydroxide - TS	1310-73-2		0.00001	
			Nitrilotriacetate, trisodium salt (NTA) - TS	5064-31-3		0.00000	
			Methyl chloride - TS	74-87-3			

* 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)

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Start Date:	9/9/2013
Fracture End Date:	9/13/2013
State:	TEXAS
County:	REAGAN
API Number:	4238338141
Operator Name:	Pioneer Natural Resources
Well Name and Number:	UNIVERSITY 1-28 1H
Longitude:	-101.7288475
Latitude:	31.1797657
Long/Lat Projection:	NAD02
Production Type:	Oil
True Vertical Depth (TVD):	8,140
Total Water Volume (aqt):	6,961,290

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	UoM	Amount of Additive Pumped	Volume of Additive Pumped (gal)	Mass of Additive Pumped (lbs)	Specific Gravity	Total Mass of Ingredient Pumped (lbs)	ESS Reference
Water	Pioneer Natural Resources	Carrier/Base Fluid	Water	7732-18-5	100.00%	87.12635%				8861290.00	57987546.70	1.00	57887546.70	
SAND (WHOLE GRAIN)	Pioneer Natural Resources Pump	Proppant	Crystalline Silica Quartz	14808-60-7	99.50%	12.15007%				25542260.14	8125689.00	2.65	8085060.56	ALV0065
POLYfrac Alpha M-4.0	Pioneer Natural Resources Pump	Gelling Agent	Clay	14808-60-7	5.00%	0.01156%				17255.00	153795.54	1.07	7689.78	HF00083
			Gum Gum	9000-30-0	50.00%	0.11558%							7689.77	
			Petroleum distillate	64742-47-8	55.00%	0.12712%							84587.55	
			Surfactant	68439-51-0	1.00%	0.00231%							1537.86	
Hydrochloric Acid, 33-40%	Pioneer Natural Resources Pump	Stimulation	Hydrogen chloride	7647-01-0	40.00%	0.08873%				14521.00	142811.76	1.18	57044.70	ALV0000
Product 6191X	Pioneer Natural Resources Pump	Surfactant	Isododecylalcohol, ethoxylated	61827-42-7	30.00%	0.02606%				6738.00	57811.37	1.03	17243.41	HF00108
			Quaternary Ammonium compound	Proprietary	10.00%	0.00899%	Corstitch, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Curtis Sitz, 713-423-7899						5781.14	
			Quaternary Ammonium Salt	Proprietary	5.00%	0.00434%	Corstitch, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Curtis Sitz, 713-423-7899						2890.57	
PXL-120	Pioneer Natural Resources Pump	Crosslinker	Boric acid	10043-30-3	23.00%	0.01616%				3530.00	43006.47	1.31	10731.62	ALV0066
			Ethylene glycol	107-21-1	40.00%	0.02585%							17202.59	
			Potassium hydroxide (CEI)	1310-58-3	50.00%	0.03231%							21503.23	
StimLube W	Pioneer Natural Resources Pump	Friction Reducer	Hydroretreated Light Distillate	64742-47-8	30.00%	0.0064%				1530.00	13386.76	1.06	4019.03	HF00080
RSW-524	Pioneer Natural Resources Pump	Scale Inhibitor	Methanol	67-56-1	15.00%	0.00273%				1364.00	12100.66	1.07	1815.10	HF00070
PROCAP MIC-AP	Pioneer Natural Resources Pump	Gel Breaker	Polyphosphoric acids, esters with triethan	68131-71-5	15.00%	0.00273%							1815.10	
			Ammonium persulfate	7727-54-0	76.00%	0.00463%				16376.94	4050.00	2.06	3078.00	ALV0030
X-Corr HT	Pioneer Natural Resources Pump	Corrosion Inhibitor	Cured Resin	Proprietary	28.00%	0.00146%							972.00	
			Cinnamaldehyde	104-55-2	30.00%	0.00077%	Fritz Industries, 500 Sam Houston Road, Mesquite, TX 75149. Contact: Laurie Meeks, 972-285-5471			215.00	1699.97	0.95	509.59	HF00067
			Isopropyl alcohol	67-63-0	60.00%	0.00153%							1019.98	
Versene * Powder Chelat	Pioneer Natural Resources Pump	Scale Inhibitor	Lauryl Alcohol Ethoxylate	68651-12-2	30.00%	0.00077%							509.98	
			Diosodium Ethylenediaminediacetate	38011-25-5	2.00%	0.00002%					716.00	0.00	14.32	HF00114
			Nitritriacetate, trisodium salt (NTA)	5064-31-3	5.00%	0.00005%							35.80	
			Sodium hydroxide	1310-73-2	2.50%	0.00003%							17.80	
			Sodium hydroxide	2838-32-0	6.50%	0.00007%							46.54	
			tetrasodium ethylenediamine tetraacetate	64-02-8	83.00%	0.00089%							594.28	
			Trisodium ethylenediaminetriacetate	19019-43-3	3.00%	0.00003%							21.48	
Sodium Erythorbate	Pioneer Natural Resources Pump	Iron Control	Sodium erythorbate	100-00-0	100.00%	0.00081%					537.00		537.00	HF00116
KCW-1701	Pioneer Natural Resources Pump	Clay stabilizer	Methanol	67-56-1	18.00%	0.00009%				36.00	318.47	1.06	57.33	HF00066
			Tetramethylammonium chloride	75-57-0	15.00%	0.00007%							47.77	
Chemical Frac Tracer	ProTechnica	Diagnostics	Sodium Salt	Proprietary	10.00%	0.00001%	Regulatory Compliance (713) 328-2320			241.88	43.56	1.50	4.36	3RD-PARTY-376
			Water	7732-18-5	91.00%	0.00006%							39.64	
T-731 Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	13.30%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			11.35	2.20	1.62	0.29	3RD-PARTY-482
			Organic Carrier	Proprietary	86.70%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						1.91	
T-718 Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	13.30%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			15.20	2.20	1.21	0.29	3RD-PARTY-480
			Organic Carrier	Proprietary	86.70%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						1.91	
T-734 Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	13.30%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			11.35	2.20	1.62	0.29	3RD-PARTY-483
			Organic Carrier	Proprietary	86.70%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						1.91	
T-735 Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	13.30%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			8.44	2.20	2.17	0.19	3RD-PARTY-484
			Organic Carrier	Proprietary	86.70%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						0.29	
T-162a Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	13.30%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			9.97	2.20	1.84	0.29	3RD-PARTY-474
			Organic Carrier	Proprietary	86.70%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						1.91	
T-716 Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	5.10%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			2.82	0.77	2.28	0.04	3RD-PARTY-479
			Organic Carrier	Proprietary	94.90%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						0.73	
T-161b Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	4.40%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			3.28	0.66	1.68	0.03	3RD-PARTY-473
			Organic Carrier	Proprietary	95.60%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						0.63	
T-720 Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	4.40%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			2.16	0.66	2.55	0.03	3RD-PARTY-481
			Organic Carrier	Proprietary	95.60%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						0.63	
T-163a Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	3.70%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			1.86	0.55	2.47	0.02	3RD-PARTY-475
			Organic Carrier	Proprietary	96.30%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						0.53	
T-164c Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	3.00%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			2.10	0.44	1.74	0.01	3RD-PARTY-476
			Organic Carrier	Proprietary	97.00%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						0.43	
T-166c Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	3.00%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			1.66	0.44	2.22	0.01	3RD-PARTY-478
			Organic Carrier	Proprietary	97.00%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						0.43	
T-168a Taggant	Tracerco	Diagnostics	Chemical Tracer	Proprietary	3.00%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769			1.90	0.44	1.93	0.01	3RD-PARTY-477
			Organic Carrier	Proprietary	97.00%	0.00000%	Tracerco 4106 New West Dr. Pasadena Texas 77507 Tel: 281-291-7769						0.43	
Ingredients Listed Below This Line Do Not Appear On the Material Safety Data Sheets (MSDS)														
			Water	Proprietary		0.14359%	Corstitch, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529						95549.88	ALV0000
			Water	Proprietary		0.05833%	Corstitch, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529						38814.55	HF00108
			Acrylamide Polymer - TS	Proprietary		0.02013%	CEI Chemical, 1004 S. Plainsman Road, Marlow OK, 73055. Contact: Jason White, 580-658-6608						13396.76	HF00080
			Water	Proprietary		0.01699%	Corstitch, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529						12901.94	ALV0066
			Water	Proprietary		0.01437%	Corstitch, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529						8659.52	HF00070
			2-hydroxy-N,N-bis(2-hydroxyethyl)-N-methyl-2-Propanol - TS	7006-59-9		0.00635%							4226.01	HF00108
			Quaternary Ammonium compounds, diox	61789-77-3		0.00100%							662.89	HF00067
			Polyposphoric acid - TS	8017-16-1		0.00073%							607.00	HF00108
			Fatty Acids, tall oil reaction products with a	68188-40-9		0.00086%							441.89	HF00067
			Polycarboxylic acid, sodium salt - TS	Proprietary		0.00055%	Kel-Tech, Inc, PO Box 11383, Midland TX 79702. Contact: Dennis Wallace, 432-684-4700						363.02	HF00070
			Triethanolamine - TS	102-71-6		0.00055%							363.02	HF00070
			Water	Proprietary		0.00033%	Corstitch, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529						218.92	HF00066
			2-Propanol - TS	67-63-0		0.00022%							144.53	HF00108
			tetrasodium ethylenediamine tetraacetate -	64-02-8		0.00019%							124.20	HF00066
			Ethox CO-30 - TS	61791-12-6		0.00018%							119.00	HF00067
			Tall oil, ethoxylated - TS	85071-36-6		0.00010%							86.00	HF00067
			Triethanolamine hydrochloride - TS	637-38-9		0.00009%							67.81	HF00108
			Triethanolamine - TS	102-71-6		0.00009%							67.81	HF00108
			Water	Proprietary		0.00009%	Corstitch, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Michael Powell, 713-332-1529						57.28	HF00114
			(2-Hydroxyethyl) trimethylammonium chlor	67-48-1		0.00006%							39.81	HF00066
			Amines, dicoco alkylmethyl, Hydrochloride	Proprietary		0.00003%	Corstitch, 3200 Southwest Freeway, ste. 2700, Houston TX 77027. Contact: Curtis Sitz, 713-423-7899						17.34	HF00108
			Amines, dicoco alkylmethyl - TS	61788-62-3		0.00003%							17.34	HF00108
			Sodium hydroxide	2838-30-0		0.00001%							8.95	HF00066
			Sodium hydroxide - TS	1310-73-2		0.00001%							5.10	HF00066
			Nitritriacetate, trisodium salt (NTA) - TS	5064-31-3		0.00000%							3.18	HF00066
			Methyl chloride - TS	74-87-3		0.00000%							0.00	HF00108

* 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%.

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccuracies and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.