

POTASSIUM FORMATE (KCOOH)

Properties based on 24°C. Calculations based on 100% purity

Saturation Point: 1,186kg per M³

WEIGHT (%)	DENSITY (KG / L)	DENSITY (LB / GAL)	HCOO⁻ (MG / L)	K⁺ (MG / L)	K⁺ (%)	KCHOO (KG / M³)	WATER (M³)
1	1.01	8.38	5,384	4,676	0.47	10.1	0.998
2	1.01	8.43	10,838	9,412	0.94	20.3	0.994
3	1.02	8.48	16,351	14,199	1.42	30.6	0.990
4	1.02	8.53	21,927	19,043	1.90	41.0	0.985
5	1.03	8.58	27,569	23,941	2.39	51.5	0.980
6	1.04	8.63	33,269	28,891	2.89	62.2	0.976
7	1.04	8.68	39,027	33,893	3.39	72.9	0.971
8	1.05	8.73	44,845	38,945	3.89	83.8	0.966
9	1.05	8.77	50,727	44,053	4.41	94.8	0.960
10	1.06	8.82	56,668	49,212	4.92	105.9	0.955
11	1.06	8.87	62,678	54,432	5.44	117.1	0.949
12	1.07	8.92	68,747	59,703	5.97	128.5	0.944
13	1.08	8.97	74,881	65,029	6.50	139.9	0.938
14	1.08	9.01	81,079	70,411	7.04	151.5	0.932
15	1.09	9.06	87,351	75,859	7.59	163.2	0.929
16	1.09	9.11	93,688	81,362	8.14	175.1	0.921
17	1.10	9.16	100,100	86,930	8.69	187.0	0.919
18	1.11	9.22	106,581	92,559	9.26	199.1	0.909
19	1.11	9.27	113,143	98,257	9.83	211.4	0.903
20	1.12	9.32	119,780	104,020	10.40	223.8	0.897
21	1.13	9.38	126,491	109,849	10.98	236.3	0.891
22	1.13	9.43	133,288	115,752	11.58	249.0	0.885
23	1.14	9.49	140,160	121,720	12.17	261.9	0.878
24	1.14	9.54	147,118	127,762	12.78	274.9	0.872
25	1.15	9.60	154,161	133,879	13.39	288.0	0.866
26	1.16	9.67	161,290	140,070	14.01	301.4	0.859
27	1.17	9.71	168,505	146,335	14.63	314.8	0.853
28	1.17	9.77	175,810	152,680	15.27	328.5	0.846
29	1.18	9.83	183,202	159,098	15.91	342.3	0.840
30	1.19	9.88	190,689	165,601	16.56	356.3	0.833
31	1.19	9.95	198,262	172,178	17.22	370.4	0.826
32	1.20	10.02	205,927	178,833	17.88	384.8	0.819
33	1.21	10.08	213,682	185,568	18.56	399.3	0.812
34	1.22	10.14	221,533	192,387	19.24	413.9	0.805
35	1.22	10.20	229,476	199,284	19.93	428.8	0.798
36	1.23	10.27	237,509	206,261	20.63	443.8	0.790
37	1.24	10.33	245,639	213,321	21.33	459.0	0.783
38	1.25	10.40	253,860	220,460	22.05	474.3	0.775
39	1.26	10.46	262,172	227,678	22.77	489.9	0.768
40	1.26	10.53	270,580	234,980	23.50	505.6	0.760

41	1.27	10.59	279,079	242,361	24.24	521.4	0.752
42	1.28	10.66	287,674	249,826	24.98	537.5	0.744
43	1.29	10.73	296,361	257,369	25.74	553.7	0.735
44	1.30	10.79	305,138	264,992	26.50	570.1	0.727
45	1.30	10.86	314,012	272,698	27.27	586.7	0.718
46	1.31	10.93	322,977	280,483	28.05	603.5	0.710
47	1.32	11.00	332,032	288,348	28.83	620.4	0.701
48	1.33	11.06	341,184	296,296	29.63	637.5	0.692
49	1.34	11.13	350,433	304,327	30.43	654.8	0.683
50	1.34	11.20	359,772	312,438	31.24	672.2	0.674
51	1.35	11.27	369,208	320,632	32.06	689.8	0.664
52	1.36	11.34	378,740	328,910	32.89	707.7	0.654
53	1.37	11.41	388,368	337,272	33.73	725.6	0.645
54	1.38	11.47	398,098	345,722	34.57	743.8	0.635
55	1.39	11.54	407,930	354,260	35.43	762.2	0.625
56	1.39	11.61	417,869	362,891	36.29	780.8	0.615
57	1.40	11.68	427,920	371,620	37.16	799.5	0.604
58	1.41	11.76	438,078	380,442	38.04	818.5	0.594
59	1.42	11.83	448,349	389,361	38.94	837.7	0.583
60	1.43	11.90	458,748	398,392	39.84	857.1	0.573
61	1.44	11.97	469,270	407,530	40.75	876.8	0.562
62	1.45	12.05	479,926	416,784	41.68	896.7	0.551
63	1.45	12.12	490,722	426,158	42.62	916.9	0.540
64	1.46	12.20	501,661	435,659	43.57	937.3	0.528
65	1.47	12.28	512,761	445,299	44.53	958.1	0.517
66	1.48	12.36	524,028	455,082	45.51	979.1	0.505
67	1.49	12.44	535,470	465,020	46.50	1,000.5	0.494
68	1.50	12.52	547,100	475,120	47.51	1,022.2	0.482
69	1.51	12.61	558,934	485,396	48.54	1,044.3	0.470
70	1.52	12.70	570,981	495,859	49.59	1,066.8	0.458
71	1.53	12.79	583,264	506,526	50.65	1,089.8	0.446
72	1.55	12.88	595,794	517,406	51.74	1,113.2	0.434
73	1.56	12.98	608,585	528,515	52.85	1,137.1	0.421
74	1.57	13.08	632,370	549,170	54.92	1,181.5	0.409
75	1.58	13.18	635,056	551,504	55.15	1,186.6	0.398



When using KCOOH for clay / shale inhibition, the quantity required as a rule of thumb is between 2 – 5%, depending on the reactivity of the clays. If in highly reactive formations or when required to drill a bore for long periods of time, the potassium that inhibits the clay will be consumed as it inhibits. Maintenance levels of KCOOH added to the drilling fluid system will be required. Test kits to measure the level of free potassium are available from Mudex.

Using bentonite with a KCOOH mud system requires the bentonite to be hydrate in fresh water for a minimum of 15 minutes prior to being added to the circulating system. Keep bentonite levels as per the recommended mud system or at 25kg per 1000 litres water.

In a KCOOH system, bentonite will thin back even if it has been hydrated in fresh water. Use VIS PAC R to increase viscosity when required.

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