

Dynalene PG

Inhibited Propylene Glycol Heat Transfer Fluid

Dynalene PG®, a non-toxic, inhibited propylene glycol that offers superior corrosion protection. **Dynalene PG®** offers low acute oral toxicity, allowing it to be used in applications where incidental contact with food or beverage products may occur.

Dynalene's Glycol family of fluids is available across North America in bulk trucks, IBC (totes) containers, 55-gallon drums, 30 gallon drums and 5 gallon pails at a reasonable price.



Typical Properties of Dynalene PG®

Composition

Propylene Glycol
Inhibitors

Appearance and Color: Clear
Odor: Sweet

Reserve Alkalinity (min.) : 10.6 ml
Flash Point (closed cup)* : 102°C (215°F)
pH : 8.5—9.5

*-None for <85% Concentration

Recommended Temperature Ranges:

Closed System: -29°C (-20°F) to 121°C (250°F)

Prime Applications

- HVAC/R
- Solar applications
- Thermal Energy Storage
- Process Cooling/Heating
- Line Heaters
- Ice and Snow Melting Systems
- Refrigeration Systems
- Plastic Extrusion
- Geothermal and Solar

Benefits of using Dynalene PG®

- Pre-mix solutions
- Custom blends
- Ability to be re-inhibited
- Proven performance
- Available throughout North America
- Cost effective
- Total Fluid Care
- Business Partnership Program

For more technical, health and safety information or to request a Material Safety Data Sheet (MSDS), contact our Dynalene sales representative at:
Phone: 610-262-9686 Fax: 610-262-7437 E-mail: info@dynalene.com

Dynalene PG

Dynalene PG		Freezing Point		Boiling Point	Refractive Index	Specific Gravity
Vol %	Wt %	°F	°C	°F	22°C (72°F)	22°C (72°F)
0	0	32	0	212	1.3328	1
5	5.2	29	-1.7	212	1.3385	1.005
10	10.5	26	-3.3	212	1.3439	1.01
15	15.6	23	-5	212	1.3501	1.015
20	20.8	19	-7.2	213	1.3665	1.02
21	21.8	17	-8.3	213	1.3576	1.021
22	22.9	17	-8.3	213	1.359	1.022
23	23.9	16	-8.9	213	1.3601	1.023
24	24.9	15	-9.4	213	1.3613	1.024
25	25.9	14	-10.1	214	1.3626	1.025
26	27	13	-10.6	214	1.3629	1.026
27	28	12	-11.1	214	1.3651	1.027
28	29	10	-12.2	215	1.3663	1.028
29	30.1	9	-12.8	216	1.3676	1.029
30	31.1	8	-13.3	216	1.3689	1.03
31	32.1	7	-13.9	216	1.3699	1.031
32	33.1	5	-15	216	1.3711	1.032
33	34.1	4	-15.6	216	1.3722	1.032
34	35.1	2	-16.7	217	1.3734	1.033
35	36.1	1	-17.2	217	1.3745	1.034
36	37.2	-1	-18.3	217	1.3759	1.035
37	38.2	-3	-19.4	218	1.3769	1.036
38	39.2	-4	-20	218	1.3781	1.037
39	40.2	-6	-21.1	219	1.3792	1.038
40	41.2	-8	-22.2	219	1.3804	1.039
41	42.2	-10	-23.3	219	1.3815	1.04
42	43.2	-12	-24.4	219	1.3827	1.041
43	44.2	-14	-25.5	219	1.3838	1.042
44	45.2	-16	-26.7	220	1.3849	1.043
45	46.2	-18	-27.8	220	1.386	1.044
46	47.2	-21	-29.4	220	1.3872	1.045
47	48.2	-23	-30.6	221	1.3883	1.046
48	49.2	-26	-32.2	221	1.3894	1.047
49	50.2	-28	-33.3	222	1.3905	1.048
50	51.2	-31	-35	222	1.3916	1.049
51	52.2	-34	-36.7	222	1.3926	1.049
52	53.2	-37	-38.3	223	1.3937	1.05
53	54.2	-40	-40	223	1.3947	1.05
54	55.2	-43	-41.7	223	1.3958	1.051
55	56.2	-46	-43.3	223	1.3968	1.052
56	57.2	-49	-45	224	1.3978	1.053
57	58.2	-53	-47.2	224	1.3988	1.054
58	59.2	-56	-48.9	224	1.4	1.054
59	60.2	<-60	<-51.1	225	1.401	1.055
60	61.2	<-60	<-51.1	225	1.402	1.055
65	66.1	<-60	<-51.1	227	1.4067	1.057
70	71	<-60	<-51.1	230	1.4113	1.057
75	75.9	<-60	<-51.1	238	1.4158	1.058
80	80.8	<-60	<-51.1	246	1.4201	1.059
85	85.6	<-60	<-51.1	258	1.4241	1.056
90	90.4	<-60	<-51.1	270	1.4248	1.056
95	95.2	<-60	<-51.1	310	1.4315	1.052

Dynalene PG

Dynalene PG Viscosity									
Temperature	cP								
	10%	20%	30%	40%	50%	60%	70%	80%	90%
F									
-30						497.57	864.87	1363.75	3555.22
-20						298.75	493.93	820.58	1819.72
-10					95.97	182.96	291.28	495.68	983.05
0				40.92	61.32	114.9	177.73	303.94	558.32
10			13.42	26.99	40.62	74.19	112.2	190.41	332.02
20		5.36	9.89	18.5	27.83	49.29	73.22	122.3	205.91
30	2.8	4.23	7.46	13.12	19.66	33.68	49.32	80.66	132.67
40	2.28	3.41	5.75	9.6	14.28	23.65	34.22	54.64	88.51
50	1.89	2.79	4.52	7.21	10.65	17.05	24.41	37.99	60.93
60	1.6	2.32	3.62	5.56	8.13	12.59	17.86	27.1	43.16
70	1.38	1.95	2.94	4.38	6.34	9.51	13.38	19.79	31.37
80	1.2	1.66	2.43	3.52	5.04	7.34	10.25	14.79	23.35
90	1.05	1.43	2.04	2.88	4.08	5.77	8	11.29	17.75
100	0.93	1.25	1.73	2.4	3.35	4.62	6.37	8.79	13.76
120	0.75	0.97	1.3	1.73	2.36	3.11	4.23	5.62	8.71
140	0.62	0.78	1.01	1.31	1.75	2.22	2.98	3.82	5.85
160	0.52	0.64	0.82	1.04	1.35	1.66	2.19	2.75	4.13
180	0.44	0.54	0.68	0.85	1.08	1.29	1.69	2.07	3.04
200	0.38	0.46	0.58	0.71	0.88	1.04	1.34	1.61	2.31
220	0.34	0.4	0.5	0.61	0.74	0.86	1.1	1.31	1.82
240	0.3	0.36	0.44	0.53	0.64	0.73	0.92	1.09	1.47

Dynalene PG									
TEMP (°F)	Thermal Conductivity (Btu/hr*ft*F)								
	10%	20%	30%	40%	50%	60%	70%	80%	90%
-30						0.171	0.159	0.147	0.137
-20					0.188	0.174	0.16	0.148	0.137
-10					0.191	0.176	0.161	0.148	0.136
0				0.211	0.194	0.178	0.162	0.149	0.136
10			0.235	0.215	0.196	0.179	0.163	0.149	0.136
20		0.262	0.239	0.218	0.199	0.181	0.164	0.15	0.136
30	0.293	0.267	0.243	0.222	0.201	0.183	0.165	0.15	0.135
40	0.299	0.272	0.247	0.225	0.204	0.184	0.166	0.15	0.135
50	0.304	0.277	0.251	0.227	0.206	0.186	0.167	0.15	0.135
60	0.31	0.281	0.254	0.23	0.208	0.187	0.168	0.15	0.134
70	0.315	0.285	0.258	0.233	0.21	0.188	0.168	0.151	0.134
80	0.319	0.289	0.261	0.235	0.211	0.189	0.169	0.151	0.134
90	0.323	0.292	0.263	0.237	0.213	0.19	0.169	0.151	0.133
100	0.327	0.295	0.266	0.239	0.214	0.191	0.17	0.151	0.133
120	0.331	0.298	0.268	0.241	0.215	0.192	0.17	0.151	0.132
140	0.34	0.306	0.274	0.245	0.218	0.194	0.171	0.15	0.131
160	0.345	0.309	0.277	0.247	0.22	0.194	0.171	0.15	0.13
180	0.348	0.312	0.279	0.249	0.221	0.195	0.17	0.149	0.129
200	0.351	0.314	0.28	0.249	0.221	0.194	0.17	0.148	0.127
220	0.352	0.314	0.28	0.249	0.22	0.194	0.169	0.147	0.126

Dynalene PG

Temp (F)	Dynalene PG									
	Specific Heat (Btu/(lb)(°F))									
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
-30							0.741	0.68	0.615	0.542
-20						0.799	0.746	0.687	0.623	0.55
-10						0.804	0.752	0.693	0.63	0.558
0					0.855	0.809	0.758	0.7	0.637	0.566
10				0.898	0.859	0.814	0.764	0.707	0.645	0.574
20			0.936	0.902	0.864	0.82	0.77	0.713	0.652	0.583
30		0.966	0.938	0.906	0.868	0.825	0.776	0.72	0.66	0.591
40	1.004	0.968	0.941	0.909	0.872	0.83	0.782	0.726	0.667	0.599
50	1.001	0.97	0.944	0.913	0.877	0.835	0.787	0.733	0.674	0.607
60	1	0.972	0.947	0.917	0.881	0.84	0.793	0.74	0.682	0.615
70	0.999	0.974	0.95	0.92	0.886	0.845	0.799	0.746	0.689	0.623
80	0.998	0.976	0.953	0.924	0.89	0.85	0.805	0.753	0.696	0.631
90	0.998	0.979	0.956	0.928	0.894	0.855	0.811	0.76	0.704	0.639
100	0.998	0.981	0.959	0.931	0.899	0.861	0.817	0.766	0.711	0.647
120	0.998	0.985	0.965	0.939	0.908	0.871	0.828	0.779	0.726	0.664
140	0.999	0.989	0.97	0.946	0.916	0.881	0.84	0.793	0.74	0.68
160	1.001	0.993	0.976	0.953	0.925	0.891	0.852	0.806	0.755	0.696
180	1.003	0.996	0.982	0.961	0.934	0.902	0.864	0.819	0.77	0.712
200	1.005	1	0.988	0.968	0.943	0.912	0.875	0.832	0.784	0.729
220	1.008	1.003	0.994	0.975	0.951	0.922	0.887	0.845	0.799	0.745

Temp (F)	Dynalene PG									
	Density (lb/ft3)									
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
-30							67.05	67.47	68.38	68.25
-20						66.46	66.93	67.34	68.13	68
-10						66.35	66.81	67.2	67.87	67.75
0					65.71	66.23	66.68	67.05	67.62	67.49
10				65	65.6	66.11	66.54	66.89	67.36	67.23
20			64.23	64.9	65.48	65.97	66.38	66.72	67.1	66.97
30		63.38	64.14	64.79	65.35	65.82	66.22	66.54	66.83	66.71
40	62.42	63.3	64.03	64.67	65.21	65.67	66.05	66.35	66.57	66.44
50	62.38	63.2	63.92	64.53	65.06	65.5	65.87	66.16	66.3	66.18
60	62.34	63.1	63.79	64.39	64.9	65.33	65.68	65.95	66.04	65.91
70	62.27	62.98	63.66	64.24	64.73	65.14	65.47	65.73	65.77	65.64
80	62.19	62.86	63.52	64.08	64.55	64.95	65.26	65.51	65.49	65.37
90	62.11	62.73	63.37	63.91	64.36	64.74	65.04	65.27	65.22	65.09
100	62	62.59	63.2	63.73	64.16	64.53	64.81	65.03	64.92	64.82
120	61.73	62.28	62.85	63.33	63.74	64.06	64.32	64.51	64.39	64.26
140	61.39	61.93	62.46	62.9	63.27	63.57	63.79	63.95	63.83	63.7
160	61.01	61.54	62.03	62.43	62.76	63.03	63.22	63.35	63.26	63.13
180	60.57	61.11	61.56	61.92	62.22	62.45	62.61	62.72	62.68	62.56
200	60.13	60.65	61.05	61.37	61.63	61.83	61.97	62.05	62.1	61.97
220	59.63	60.15	60.5	60.78	61	61.17	61.28	61.33	61.51	61.38

Dynalene PG

Temp (°F)	Dynalene PG									
	Vapor Pressure (psia)									
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
100	1.0	1.0	0.9	0.9	0.9					
110	1.3	1.3	1.9	1.2	1.2	1.1	1.0			
120	1.7	1.7	1.7	1.6	1.5	1.5	1.4	1.2	1.0	
130	2.2	2.2	2.2	2.1	2.0	1.9	1.8	1.5	1.3	
140	2.9	2.9	2.8	2.7	2.6	2.5	2.3	2	1.7	
150	3.7	3.7	3.6	3.5	3.4	3.2	3.0	2.5	2.1	1.2
160	4.7	4.7	4.6	4.4	4.3	4.1	3.8	3.2	2.7	1.5
170	6.0	5.9	5.8	5.6	5.4	5.2	4.8	4.1	3.5	1.9
180	7.5	7.4	7.2	7.0	6.7	6.5	5.9	5.1	4.4	2.4
190	9.3	9.2	9	8.7	8.3	8.1	7.4	6.3	5.4	3.1
200	11.5	11.3	11.0	10.7	10.2	9.9	9.1	7.8	6.7	3.9
210	14.1	13.8	13.5	13.1	12.5	12.1	11.1	9.5	8.2	4.8
220	17.2	16.8	16.4	15.9	15.2	14.8	13.6	11.6	10.0	5.9
230	20.8	20.3	19.8	19.2	18.4	17.8	16.4	14.0	12.1	7.2
240	25	24.4	23.8	23	22	21.4	19.7	16.8	14.6	8.8
250	29.8	29.1	28.4	27.4	26.3	25.6	23.5	20.1	17.5	10.7
260	35.4	34.6	33.7	32.5	31.2	30.3	27.9	23.9	20.8	12.9
270	41.8	40.8	39.7	38.4	36.8	35.8	33.0	28.2	24.7	15.4
280	49.2	48.0	46.7	45.1	43.3	42.1	38.8	33.2	29.1	18.3
290	57.5	56.1	54.6	52.7	50.6	49.3	45.4	38.9	34.1	21.7
300	67.0	65.3	63.5	61.4	58.9	57.4	52.8	45.3	39.8	25.6
310	77.6	75.7	73.6	71.1	68.2	66.5	61.3	52.6	46.3	30.0
320	89.6	87.4	84.9	82.0	78.7	76.8	70.8	60.7	53.5	35.0
325	96.1	93.8	91.1	88	84.4	82.4	76	65.2	57.5	37.8