

Caldera 7

Silicone Heat Transfer Fluid



CALDERA®
HEAT TRANSFER FLUIDS



Heat Transfer Fluids

Caldera 7 is a premium silicone heat transfer fluid. It is formulated with an advanced additive system for superior performance and also protects against oxidation, wear, rust and corrosion. Compatible with most silicone-based fluid technology on the market, Caldera 7 can be mixed at any ratio without issue. Caldera 7 is stable up to a maximum film temperature of 691°F (366°C), making it ideal for the most intensive heat transfer applications.

Applications

- Open-bath systems
- Closed loop systems with a maximum bulk temperature of 601°F (316°C)
- Open loop systems with a maximum bulk temperature of 400°F (204°C)

Performance Advantages

- Ideal for open bath systems
- Impervious to oxidation
Ideal for systems prone to premature fluid degradation

Temperature Range



Typical Properties

Caldera 7

Minimum Temperature, °F (°C)	-63 (-53)
Maximum Film Temperature, °F (°C)	691 (366)
Maximum Bulk Temperature, Closed Systems, °F (°C)	601 (316)
Maximum Bulk Temperature, Open Systems, °F (°C)	400 (204)
Pour Point, °F (°C)	-87 (-66)
Flash Point, °F (°C)	615 (324)
Fire Point, °F (°C)	637 (336)
Autoignition Point, °F (°C)	819 (437)
Thermal Expansion Coefficient, %/°F	0.0583
Thermal Conductivity @ 100°F, BTU/h-ft-F	0.0769
Thermal Conductivity @ 500°F, BTU/h-ft-F	0.0584
Heat Capacity @ 100°F, BTU/lb-F	0.409
Heat Capacity @ 500°F, BTU/lb-F	0.510
Distillation Range (ASTM D2887), 10% °F	921
Distillation Range (ASTM D2887), 90% °F	1254

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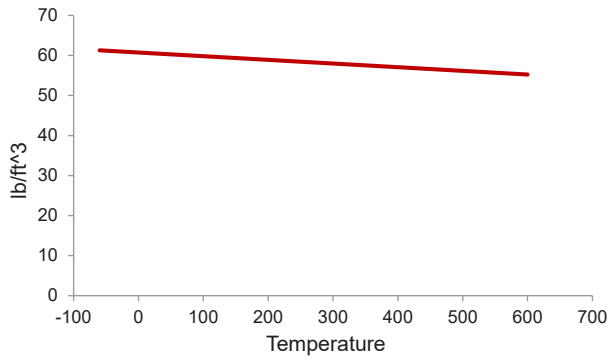
email: sales@iselinc.com
web: www.calderafluids.com

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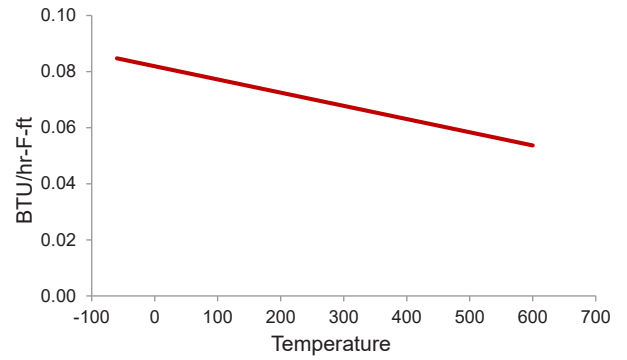
Silicone Heat Transfer Fluid



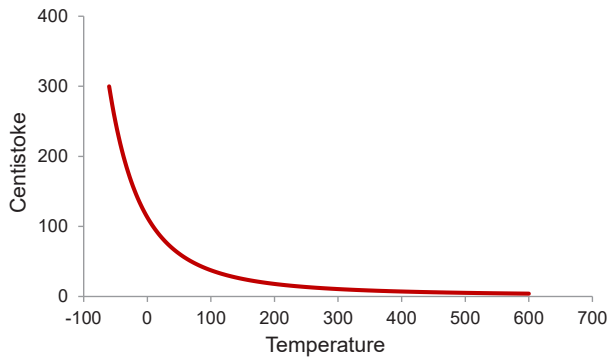
Density



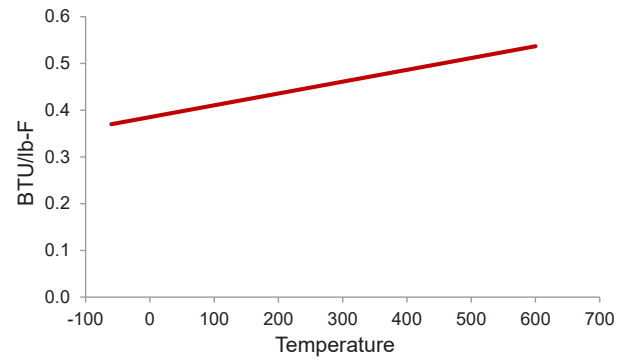
Thermal Conductivity



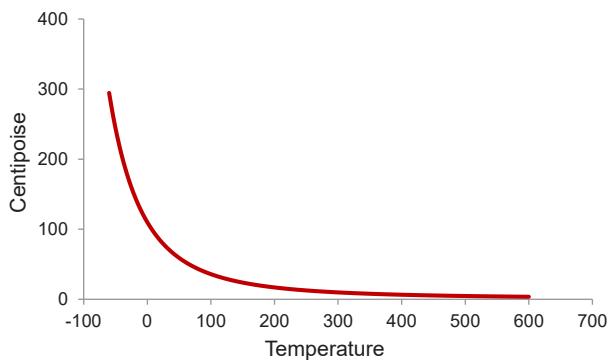
Kinematic Viscosity



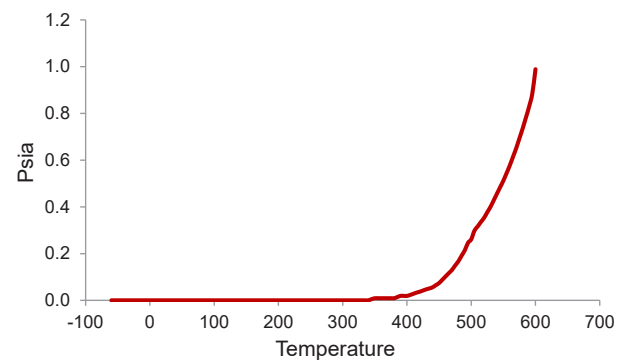
Heat Capacity



Dynamic Viscosity



Vapor Pressure



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Temperature (°F)	Density (lb/ft ³)	Kinematic Viscosity (Centistoke)	Dynamic Viscosity (Centipoise)	Thermal Conductivity (BTU/hr-F-ft)	Heat Capacity (BTU/lb-F)	Vapor Pressure (Psia)
-60	61.28	299.88	294.57	0.085	0.370	0.00
-55	61.24	272.95	267.91	0.084	0.371	0.00
-50	61.19	249.09	244.31	0.084	0.372	0.00
-45	61.15	227.90	223.36	0.084	0.374	0.00
-40	61.10	209.03	204.71	0.084	0.375	0.00
-35	61.06	192.17	188.05	0.084	0.376	0.00
-30	61.01	177.06	173.14	0.083	0.378	0.00
-25	60.96	163.50	159.76	0.083	0.379	0.00
-20	60.92	151.29	147.72	0.083	0.380	0.00
-15	60.87	140.28	136.86	0.083	0.381	0.00
-10	60.83	130.31	127.05	0.082	0.383	0.00
-5	60.78	121.29	118.16	0.082	0.384	0.00
0	60.73	113.08	110.08	0.082	0.385	0.00
5	60.69	105.62	102.74	0.082	0.386	0.00
10	60.64	98.81	96.05	0.081	0.388	0.00
15	60.60	92.59	89.93	0.081	0.389	0.00
20	60.55	86.90	84.34	0.081	0.390	0.00
25	60.51	81.68	79.21	0.081	0.391	0.00
30	60.46	76.88	74.50	0.080	0.393	0.00
35	60.41	72.46	70.17	0.080	0.394	0.00
40	60.37	68.40	66.18	0.080	0.395	0.00
45	60.32	64.64	62.50	0.080	0.396	0.00
50	60.28	61.17	59.09	0.080	0.398	0.00
55	60.23	57.95	55.94	0.079	0.399	0.00
60	60.18	54.97	53.02	0.079	0.400	0.00
65	60.14	52.20	50.31	0.079	0.402	0.00
70	60.09	49.62	47.80	0.079	0.403	0.00
75	60.05	47.23	45.45	0.078	0.404	0.00
80	60.00	44.99	43.27	0.078	0.405	0.00
85	59.96	42.90	41.23	0.078	0.407	0.00
90	59.91	40.95	39.33	0.078	0.408	0.00
95	59.86	39.13	37.54	0.077	0.409	0.00
100	59.82	37.42	35.88	0.077	0.410	0.00
105	59.77	35.82	34.31	0.077	0.412	0.00
110	59.73	34.31	32.85	0.077	0.413	0.00
115	59.68	32.90	31.47	0.076	0.414	0.00
120	59.63	31.57	30.17	0.076	0.415	0.00
125	59.59	30.32	28.96	0.076	0.417	0.00

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Temperature (°F)	Density (lb/ft ³)	Kinematic Viscosity (Centistoke)	Dynamic Viscosity (Centipoise)	Thermal Conductivity (BTU/hr-F-ft)	Heat Capacity (BTU/lb-F)	Vapor Pressure (Psia)
130	59.54	29.14	27.81	0.076	0.418	0.00
135	59.50	28.02	26.72	0.076	0.419	0.00
140	59.45	26.97	25.70	0.075	0.421	0.00
145	59.41	25.98	24.73	0.075	0.422	0.00
150	59.36	25.04	23.82	0.075	0.423	0.00
155	59.31	24.15	22.96	0.075	0.424	0.00
160	59.27	23.30	22.14	0.074	0.426	0.00
165	59.22	22.50	21.36	0.074	0.427	0.00
170	59.18	21.74	20.62	0.074	0.428	0.00
175	59.13	21.02	19.92	0.074	0.429	0.00
180	59.08	20.34	19.26	0.073	0.431	0.00
185	59.04	19.68	18.63	0.073	0.432	0.00
190	58.99	19.06	18.03	0.073	0.433	0.00
195	58.95	18.47	17.45	0.073	0.434	0.00
200	58.90	17.91	16.91	0.072	0.436	0.00
205	58.86	17.37	16.39	0.072	0.437	0.00
210	58.81	16.86	15.89	0.072	0.438	0.00
215	58.76	16.37	15.42	0.072	0.439	0.00
220	58.72	15.90	14.96	0.072	0.441	0.00
225	58.67	15.45	14.53	0.071	0.442	0.00
230	58.63	15.02	14.12	0.071	0.443	0.00
235	58.58	14.61	13.72	0.071	0.445	0.00
240	58.53	14.22	13.34	0.071	0.446	0.00
245	58.49	13.84	12.98	0.070	0.447	0.00
250	58.44	13.48	12.63	0.070	0.448	0.00
255	58.40	13.14	12.30	0.070	0.450	0.00
260	58.35	12.80	11.98	0.070	0.451	0.00
265	58.31	12.49	11.67	0.069	0.452	0.00
270	58.26	12.18	11.37	0.069	0.453	0.00
275	58.21	11.88	11.09	0.069	0.455	0.00
280	58.17	11.60	10.81	0.069	0.456	0.00
285	58.12	11.33	10.55	0.068	0.457	0.00
290	58.08	11.06	10.30	0.068	0.458	0.00
295	58.03	10.81	10.05	0.068	0.460	0.00
300	57.98	10.57	9.82	0.068	0.461	0.00
305	57.94	10.33	9.59	0.068	0.462	0.00
310	57.89	10.10	9.38	0.067	0.463	0.00
315	57.85	9.88	9.16	0.067	0.465	0.00

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320	57.80	9.67	8.96	0.067	0.466	0.00
325	57.76	9.47	8.77	0.067	0.467	0.00
330	57.71	9.27	8.58	0.066	0.469	0.00
335	57.66	9.08	8.39	0.066	0.470	0.00
340	57.62	8.90	8.22	0.066	0.471	0.00
345	57.57	8.72	8.05	0.066	0.472	0.01
350	57.53	8.55	7.88	0.065	0.474	0.01
355	57.48	8.38	7.72	0.065	0.475	0.01
360	57.43	8.22	7.57	0.065	0.476	0.01
365	57.39	8.06	7.42	0.065	0.477	0.01
370	57.34	7.91	7.27	0.064	0.479	0.01
375	57.30	7.76	7.13	0.064	0.480	0.01
380	57.25	7.62	6.99	0.064	0.481	0.01
385	57.21	7.48	6.86	0.064	0.482	0.01
390	57.16	7.35	6.73	0.064	0.484	0.02
395	57.11	7.22	6.61	0.063	0.485	0.02
400	57.07	7.09	6.49	0.063	0.486	0.02
405	57.02	6.97	6.37	0.063	0.488	0.02
410	56.98	6.85	6.26	0.063	0.489	0.03
415	56.93	6.74	6.15	0.062	0.490	0.03
420	56.88	6.63	6.04	0.062	0.491	0.04
425	56.84	6.52	5.94	0.062	0.493	0.04
430	56.79	6.41	5.84	0.062	0.494	0.05
435	56.75	6.31	5.74	0.061	0.495	0.05
440	56.70	6.21	5.64	0.061	0.496	0.06
445	56.66	6.11	5.55	0.061	0.498	0.07
450	56.61	6.01	5.46	0.061	0.499	0.07
455	56.56	5.92	5.37	0.060	0.500	0.09
460	56.52	5.83	5.28	0.060	0.501	0.10
465	56.47	5.74	5.20	0.060	0.503	0.12
470	56.43	5.66	5.12	0.060	0.504	0.13
475	56.38	5.57	5.04	0.060	0.505	0.15
480	56.33	5.49	4.96	0.059	0.506	0.17
485	56.29	5.41	4.88	0.059	0.508	0.19
490	56.24	5.34	4.81	0.059	0.509	0.21
495	56.20	5.26	4.74	0.059	0.510	0.25
500	56.15	5.19	4.67	0.058	0.512	0.26
505	56.11	5.12	4.60	0.058	0.513	0.30

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510	56.06	5.05	4.53	0.058	0.514	0.32
515	56.01	4.98	4.47	0.058	0.515	0.34
520	55.97	4.91	4.41	0.057	0.517	0.35
525	55.92	4.85	4.34	0.057	0.518	0.38
530	55.88	4.78	4.28	0.057	0.519	0.40
535	55.83	4.72	4.22	0.057	0.520	0.43
540	55.78	4.66	4.17	0.056	0.522	0.46
545	55.74	4.60	4.11	0.056	0.523	0.48
550	55.69	4.54	4.05	0.056	0.524	0.51
555	55.65	4.49	4.00	0.056	0.525	0.54
560	55.60	4.43	3.95	0.056	0.527	0.58
565	55.56	4.38	3.90	0.055	0.528	0.61
570	55.51	4.32	3.85	0.055	0.529	0.65
575	55.46	4.27	3.80	0.055	0.530	0.69
580	55.42	4.22	3.75	0.055	0.532	0.74
585	55.37	4.17	3.70	0.054	0.533	0.78
590	55.33	4.12	3.65	0.054	0.534	0.83
595	55.28	4.07	3.61	0.054	0.536	0.88
600	55.23	4.03	3.57	0.054	0.537	0.99
605	55.19	3.98	3.52	0.053	0.538	1.14
610	55.14	3.94	3.48	0.053	0.539	1.34
615	55.10	3.89	3.44	0.053	0.541	1.62
620	55.05	3.85	3.40	0.053	0.542	1.91
625	55.01	3.81	3.36	0.052	0.543	2.32
630	54.96	3.77	3.32	0.052	0.544	2.73
635	54.91	3.73	3.28	0.052	0.546	3.30
640	54.87	3.69	3.24	0.052	0.547	3.88
645	54.82	3.65	3.20	0.052	0.548	4.71
650	54.78	3.61	3.17	0.051	0.549	5.53



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All products manufactured in the USA