Shreyas Petroleum Additives Limited

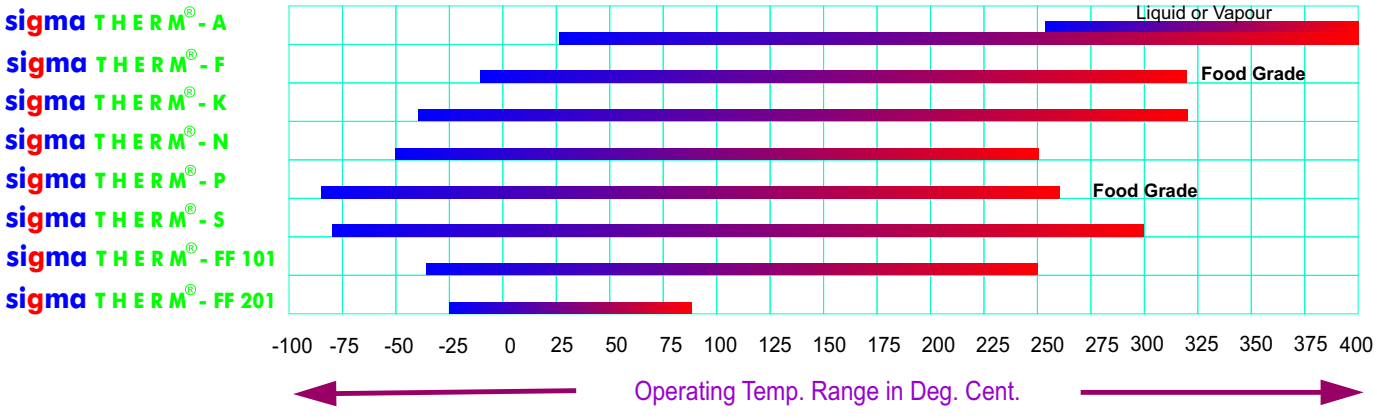
Single Fluid for Cooling and Heating

-80 °C to 300 °C

sigma THERM® - S

Synthetic Thermic Fluid

Thermic Fluid and other Speciality Range



www.sigma-therm.com

ISO 9001

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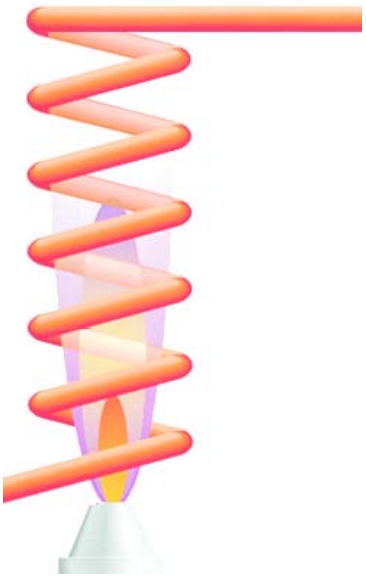
Single Fluid - Cooling and Heating

sigma THERM® - S

Extended Life Thermic Fluid

Description :



sigma THERM® - S is a synthetic organic heat transfer fluid based on Alkylated aromatic.

Application :

Indirect closed heat transfer systems from - 80 °C to 160 °C in liquid phase without pressurization of system and with proper pressurization up to 300°C

This single fluid is used for challenging requirement of Pharmaceutical, Fine Chemicals and other industries where two different circuits with different fluids are there for cooling and heating purpose.

It replaces traditional duel steam & glycol or steam & brine systems.

Benefits :

- Eliminates duel fluids for heating and cooling.
- Long Life.
- Cost Effective Solution
- Trouble free operation

Gasket Material Compatibility :

sigma THERM® - S has an acceptable compatibility when used within the temperature and pressure limitation of the following polymers or gasketing materials:

Acetal, Aramid Fiber, Chemraz (FFKM), Epoxy, Fluorocarbon (FILM), Fluoroelastomer, Glass Fiber, Gylon Style 3500, 3504 & 3510, Kalrez, PEEK, Polytetrafluoro-ethylene, Teflon (All) , Teflon Encapsulated Silicon, Teflon Encapsulated Viton, Teflon Impregnated Fiberglass, Kel-F (CTE), Viton, Resin Impregnated Carbon Graphite

Typical Properties :

Composition	Alkylated Aromatics
Appearance	Clear to Light Yellow
Max. Bulk Temperature, ° C	300
Max. Film Temperature, ° C	320
Kin. Vis. @ 40°C, cSt	0.81
Pour Point , ° C	Below (-81)
Specific Gravity @ 20 ° C	0.86
Auto Ignition Temp. °C	410
Initial Boiling Point °C	Min 180
Flash Point °C	Min 60
Vapour Pressure @ 38 °C, kPa	0.336

Packing : 210 liters

sigma THERM® - S

Properties

sigma THERM® - S

Extended Life Thermic Fluid

Temp	Density	Specific Heat	Thermal Conductivity	Kin. Vis	Vapour Pressure
°C	Kg/m^3	KJ/Kg K	W/m K	cSt	kPa
-80	940.0	1.5432	0.151	11.00	-
-70	932.0	1.5746	0.148	8.00	-
-60	924.0	1.6060	0.146	6.50	-
-50	915.9	1.6374	0.144	5.50	-
-40	907.9	1.6688	0.142	4.54	-
-30	899.8	1.7002	0.139	3.83	-
-20	891.8	1.7316	0.137	2.98	-
-10	883.8	1.7630	0.135	2.20	-
0	875.7	1.7944	0.133	1.67	-
10	867.7	1.8258	0.130	1.38	-
20	859.6	1.8572	0.128	1.15	0.10
30	851.6	1.8886	0.126	0.95	0.19
40	843.6	1.9200	0.124	0.81	0.38
50	835.5	1.9514	0.121	0.73	0.67
60	827.5	1.9828	0.119	0.67	1.14
70	819.4	2.0142	0.117	0.61	1.81
80	811.4	2.0456	0.115	0.56	2.95
90	803.4	2.0770	0.112	0.52	4.47
100	795.3	2.1084	0.110	0.48	6.75
110	787.3	2.1398	0.108	0.45	9.98
120	779.2	2.1712	0.106	0.42	14.54
130	771.2	2.2026	0.103	0.39	20.62
140	763.2	2.2340	0.101	0.37	28.79
150	755.1	2.2654	0.099	0.35	39.43
160	747.1	2.2968	0.096	0.33	53.30
170	739.0	2.3282	0.094	0.31	71.06
180	731.0	2.3596	0.092	0.30	93.48
190	723.0	2.3910	0.090	0.28	121.60
200	714.9	2.4224	0.087	0.27	155.80
210	706.9	2.4538	0.085	0.26	198.55
220	698.8	2.4852	0.083	0.25	248.90
230	690.8	2.5166	0.081	0.24	310.65
240	682.8	2.5480	0.078	0.23	383.80
250	674.7	2.5794	0.076	0.22	470.25
260	666.7	2.6108	0.074	0.22	570.95
270	658.6	2.6422	0.072	0.21	688.75
280	650.6	2.6736	0.069	0.20	825.55
290	642.6	2.7050	0.067	0.20	978.50
300	634.5	2.7364	0.065	0.19	1159.00

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