

The background of the entire page is a blue-toned image of a molecular structure, possibly a protein or a complex polymer, with various spheres and connecting rods. The top half of the page is a white curved area containing the logo and text. The logo 'sigmaTHERM® - V' is in blue and green. Below it, the temperature range '(-115) °C TO 175 °C' is in black. Further down, the text 'Single Fluid for Heating and Cooling' is in black. At the bottom left, the website 'www.sigma-therm.com' is in black. There are decorative dotted patterns in the corners of the white area.

sigmaTHERM® - V

(-115) °C TO 175 °C

Single Fluid for
Heating and Cooling

Description:

sigma THERM® - V is a Ultra Low Temperature Heat Transfer Fluid used in Single Fluid Heating and Cooling applications.

Application :

Indirect closed heat transfer systems : (- 115) °C to 175 °C

This single fluid caters the dual demand heating and cooling in Pharmaceutical, Fine Chemicals and other industries.

It has got boiling point of 99°C. For higher operating temperature care should be taken for proper design of system. It is highly recommended to use Nitrogen Blanketing in expansion tank. Pressure release devices should be provided at appropriate places.

Benefits :

- Simplifies by eliminating multiple fluids for heating and cooling.
- Engineered for Longevity and lasting performance.
- Cost optimised Solution for maximum value.
- Effortless operations with minimum maintenance.

Compatibility :

Metal : **sigma THERM® - V** is compatible with all metals.

Typical Properties :

Composition	Mixture
Appearance	Water White
Max. Bulk Temperature, °C	175
Max. Film Temperature, °C	210
Kin. Vis. @ 40 °C, cSt	0.7
Pour Point , °C	(-)135
Specific Gravity @ 20 °C	0.75
Auto Ignition Temp. °C (DIN 51794)	295
Boiling Point °C	99
Flash Point °C, Closed Cup	(-)7

Packing :

200 Ltrs

Temp	Density	Specific Heat	Heat of Vaporisation	Liquid Enthalpy	Thermal Conductivity	Kinematic Viscosity	Vapour Pressure
°C	kg/m ³	kJ/kg°K	kJ/kg	kJ/kg	W/m·K	cSt	kPa
-135	882	1.300	425	-22.6	0.135	400	-
-130	878	1.320	423	-16.1	0.135	218	-
-120	870	1.360	418	-3.0	0.133	79.5	-
-110	861	1.410	414	11	0.131	35.7	-
-100	853	1.450	409	25	0.129	18.8	-
-90	845	1.490	404	39	0.127	11.2	-
-80	837	1.540	399	54	0.125	7.2	0.002
-70	828	1.580	394	69	0.123	5.0	0.006
-60	820	1.630	389	85	0.121	3.7	0.018
-50	812	1.670	384	101	0.119	2.9	0.049
-40	803	1.710	379	118	0.117	2.3	0.118
-30	795	1.750	374	135	0.115	1.9	0.261
-20	787	1.800	369	153	0.113	1.5	0.537
-10	778	1.840	364	170	0.111	1.3	1.03
0	770	1.880	359	189	0.109	1.1	1.88
10	761	1.920	354	208	0.107	0.99	3.26
20	752	1.970	349	227	0.105	0.87	5.40
30	744	2.010	343	246	0.102	0.78	8.61
40	735	2.050	338	266	0.100	0.70	13.27
50	726	2.090	333	287	0.098	0.63	19.8
60	717	2.130	327	307	0.096	0.57	28.8
70	708	2.170	322	329	0.094	0.52	40.9
80	698	2.210	316	350	0.091	0.48	56.6
90	689	2.260	310	372	0.089	0.44	77
100	679	2.300	304	395	0.087	0.41	103
110	669	2.340	298	417	0.084	0.37	135
120	660	2.380	292	441	0.082	0.35	174
130	649	2.420	286	464	0.079	0.32	222
140	639	2.460	279	489	0.077	0.30	278
150	629	2.510	272	513	0.074	0.28	346
160	618	2.550	265	538	0.071	0.26	425
170	606	2.600	258	563	0.069	0.25	516
180	595	2.640	250	589	0.066	0.23	622

Note : Above data is for reference only

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