

The image features a background of a molecular structure with blue and white spheres connected by thin rods, set against a light blue and white geometric pattern. A dark blue curved line separates the top text from the molecular structure. The logo 'sigmaTHERM® - D' is positioned in the upper right, with 'sigma' in blue, 'THERM' in green, and '® - D' in black.

**sigmaTHERM® - D**

**0 °C TO 260 °C**

Medium Temperature Superior Performance  
Special Heat Transfer Fluid

[www.sigma-therm.com](http://www.sigma-therm.com)

## Medium Temperature Superior Performance Special Thermic Fluid

**sigma THERM® - D**

### Description:

**sigma THERM® - D** is a superior performance heat transfer fluid. Latest technology is used to produce Modified Hydrocarbon/ Engineered Hydrocarbon. This highest performance fluid is used as base oil in formulation of the product. Its thermal stability matches with synthetic thermic fluid in similar operating range.

### Application :

Indirect closed heat transfer systems : 0 °C to 260 °C

### Benefits :

- Higher rate of heat transfer
- Lower time required to achieve operating Temperature
- Lower load on circulation pump
- Lower power rated circulation pump is also suitable
- Reduces Fuel Consumption.

### Special Note :

Proper Heat Transfer Fluid selection is a very crucial job. Generally all products available in the market are for high temperature application. But till date none of the proper product is there for medium temperature range.

Co-efficient of heat transfer ( heat transfer rate ) is inversely proportionate to Kinematic Viscosity of the heat transfer fluid at operating temperature.

### Mixability :

**sigma THERM® - D** has been thoroughly tested in the laboratory with different proportionate of other thermic fluid at various high temperatures for stability and other related parameters.

Based on results it is proved that **sigma THERM® - D** could be used for top-up purpose in the systems already containing mineral based thermic fluids or Synthetic based thermic fluid.

### Compatibility :

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

### Typical Properties :

Base oil	Modified / Engineered Hydrocarbon
Appearance	Water white
Max. Bulk Temperature	260 °C
Kin. Vis. @ 40 °C	10 - 12 cSt
Specific Gravity @ 15 °C	0.83 ± 0.01
Flash Point ( COC)	185 °C
Fire Point	205 °C
Pour point	< (-20)° C
Moisture content	50 ppm
Total Acid No	<0.01 mg KOH/g

**Packing :** 210 Ltrs, 35 Ltrs

Temp	Density	Specific Heat	Thermal Conductivity	Kinematic Viscosity	Vapour Pressure
°C	kg/m <sup>3</sup>	kJ/(kg °K)	W/(m·K)	cSt	kPa
0	847	1.853	0.144	44.10	0.00
10	843	1.896	0.143	29.40	0.00
20	839	1.939	0.142	19.60	0.00
30	835	1.982	0.141	14.70	0.01
40	831	2.025	0.140	10.00	0.02
50	827	2.068	0.140	7.75	0.03
60	823	2.111	0.139	5.92	0.05
70	819	2.154	0.138	4.56	0.06
80	815	2.197	0.137	3.65	0.08
90	811	2.240	0.137	3.01	0.10
100	807	2.283	0.136	2.51	0.16
110	803	2.326	0.135	2.03	0.24
120	799	2.370	0.134	1.81	0.37
130	795	2.413	0.134	1.65	0.56
140	791	2.456	0.133	1.49	0.83
150	787	2.499	0.132	1.35	1.23
160	783	2.542	0.131	1.23	1.80
170	779	2.585	0.131	1.13	2.50
180	775	2.628	0.130	1.03	3.50
190	771	2.671	0.129	0.96	4.80
200	767	2.714	0.128	0.88	6.54
210	763	2.757	0.128	0.80	9.0
220	759	2.800	0.127	0.75	12
230	755	2.843	0.126	0.69	16
240	751	2.887	0.125	0.65	21
250	747	2.930	0.125	0.61	28
260	743	2.973	0.124	0.57	36

Note : Above data is for reference only

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