

# Dynalene MV

## Ultra-low Temperature Heat Transfer Fluid

Dynalene® MV heat transfer fluid extends low-end operating ranges far beyond the boundaries of most competitive brands. Even at temperatures below -112°C (-170°F), the fluid remains pumpable. Dynalene MV allows for cost-effective retrofits with minimal equipment modifications. Dynalene MV is chosen when low temperature performance matters.

### Polymer and Gasket Compatibility\*

- ◆ Acetal
- ◆ Aramid Fiber
- ◆ Chemraz (FFKM)
- ◆ Epoxy
- ◆ Fluorocarbon (FILM)
- ◆ Fluoroelastomer
- ◆ Glass Fiber
- ◆ Gylon Style 3500, 3504, & 3510
- ◆ Kalrez
- ◆ Kel-F (CTFE)
- ◆ Peek
- ◆ Polytetrafluor-ethylene
- ◆ Teflon (All)
- ◆ Teflon Encapsulated Silicone
- ◆ Teflon Encapsulated Viton
- ◆ Teflon Impregnated Fiberglass
- ◆ Viton
- ◆ Resin Impregnated Carbon Graphite

\* For compatibility review on the materials listed above, or the other materials not mentioned in this section, consult the Dynalene® Engineering Department at the number listed below.

### Typical Properties of Dynalene MV

Composition: Hydrocarbon Blend  
Appearance and Color: Transparent, clear to light yellow

Property	SI units	US units
Freezing Point:	< -129°C	< -200°F
Boiling Point:	176-179°C	348-354°F
Flash Point (closed):	53°C	127°F
Flash Point (open):	61°C	142°F
Fire Point:	64°C	147°F
Autoignition Temp:	388°C	730°F
Critical Temp <sup>1</sup> :	387°C	729°F
Critical Pressure <sup>1</sup> :	34 bar	33.6 atm
Avg. Molecular Wgt:		135
Dielectric Constant:		2.3

<sup>1</sup>estimated value

### Recommended Temperature Ranges:

-112°C (-170°F) to 163°C (325°F)

Dynalene MV is recommended  
for closed loop systems only

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](mailto:info@dynalene.com)

# Dynalene MV

Temperature °F	Viscosity cP	Thermal Conductivity Btu/hr•ft•°F	Specific Heat Btu/lb•°F	Density lb/ft <sup>3</sup>
-170	217.464	0.0951	0.318	59.2
-160	97.037	0.0943	0.322	58.9
-140	30.341	0.0928	0.332	58.4
-120	13.670	0.0912	0.341	57.8
-100	7.648	0.0897	0.350	57.3
-80	4.917	0.0882	0.360	56.8
-60	3.473	0.0867	0.369	56.2
-40	2.624	0.0851	0.379	55.7
-20	2.082	0.0836	0.388	55.2
0	1.716	0.0821	0.397	54.6
20	1.455	0.0805	0.407	54.1
40	1.263	0.0790	0.416	53.5
60	1.116	0.0775	0.425	53.0
80	1.002	0.0760	0.435	52.5
100	0.910	0.0744	0.444	51.9
120	0.836	0.0729	0.453	51.4
140	0.774	0.0714	0.463	50.9
160	0.723	0.0699	0.472	50.3
180	0.679	0.0683	0.482	49.8
200	0.641	0.0668	0.491	49.3
220	0.609	0.0653	0.500	48.7
240	0.580	0.0637	0.510	48.2
260	0.555	0.0622	0.519	47.6
280	0.533	0.0607	0.528	47.1
300	0.513	0.0592	0.538	46.6
320	0.496	0.0576	0.547	46.0
325	0.491	0.0572	0.549	45.9
Temperature °C	Viscosity mPa•s	Thermal Conductivity W/m•K	Specific Heat kJ/kg•K	Density kg/m <sup>3</sup>
-112	215.298	0.1646	1.330	948
-100	46.404	0.1618	1.373	938
-90	19.913	0.1594	1.408	931
-80	10.708	0.1570	1.443	923
-70	6.663	0.1546	1.479	915
-60	4.581	0.1522	1.514	907
-50	3.383	0.1499	1.549	900
-40	2.634	0.1475	1.584	892
-30	2.134	0.1451	1.620	884
-20	1.784	0.1427	1.655	876
-10	1.528	0.1403	1.690	869
0	1.336	0.1380	1.726	861
10	1.187	0.1356	1.761	853
20	1.069	0.1332	1.796	845
30	0.974	0.1308	1.831	838
40	0.895	0.1284	1.867	830
50	0.830	0.1260	1.902	822
60	0.775	0.1237	1.937	815
70	0.728	0.1213	1.973	807
80	0.688	0.1189	2.008	799
90	0.652	0.1165	2.043	791
100	0.622	0.1141	2.078	784
110	0.594	0.1118	2.114	776
120	0.570	0.1094	2.149	768
130	0.549	0.1070	2.184	760
140	0.529	0.1046	2.219	753
150	0.512	0.1022	2.255	745
163	0.491	0.0991	2.301	735