

High Flash, Non-Toxic, Low Temperature Heat Transfer Fluid

Process Applications

- Ultra-low temperature applications
- Pharmaceutical
- Process cooling & heating
- Cryogenic
- Refrigeration systems
- Freeze-drying

■ Dynalene HF-LO Overview

Dynalene HF-LO heat transfer fluid is engineered to offer non-toxic odorless qualities. Dynalene HF-LO is an environmentally sound, thermally effective heat transfer fluid with a high flash point. When operator safety, environmental impact, and price are your requirements, Dynalene HF-LO is your solution.

The Dynalene 'LO' family of fluids, including Dynalene HF-LO, Dynalene LO-170, and Dynalene LO-230, all consistently provide a high-level of user friendly performance to meet the expectations of the customer.

■ Materials Compatibility

Polymer and Gasket Compatibility:

- Acetal
- Aramid Fiber
- Chemraz (FFKM)
- Epoxy
- Fluorocarbon (FILM)
- Fluoroelastomer
- Glass Fiber
- Gylon
- Kalrez
- Kel-F (CTFE)
- Peek
- PTFE
- Teflon (All)
- PTFE-Silicone
- PTFE-Viton
- PTFE-Fiberglass
- Viton
- Resin-Graphite

Metal Compatibility:

- Aluminum
- Brass
- Bronze (All)
- Carbon Steel
- Copper
- Copper Nickel
- Monel
- Nickel
- Stainless Steel (All)
- Stainless Steel Clad
- Tantalum
- Titanium

■ Benefits of Choosing Dynalene HF-LO

- Non-toxic
- High flash point
- Available throughout North America
- Cost-effective
- Total fluid care
- Proven performance

Recommended Temperature Range:

Closed Systems:

-73°C (-100°F) to 204°C (400°F)

Open Systems:

-52°C (-60°F) to 58°C (135°F)

■ Properties of Dynalene HF-LO

A comprehensive list of all thermo-physical properties of Dynalene HF-LO can be found on page 2. For health and safety information or to request a Material Safety Data Sheet, contact our Dynalene sales representatives.

Composition:	Aliphatic hydrocarbon blend
Appearance:	Clear
Odor:	Little or none
Freezing Point:	<-118°C (<-180°F)
Boiling Point:	>191°C (>376°F)
Flash Point (Closed):	>61°C (>141°F)
Flash Point (Open):	68°C (156°F)
Fire Point:	72°C (162°F)
Autoignition Temp:	>337°C (>640°F)
Critical Temp:	394°C (741°F)
Critical Pressure:	27 bar (26.7 atm)
Molecular Wt	150
Dielectric Constant	2.1 to 2.2

■ Dynalene's Fluid Care Program

Coupling our Dynalene fluids with a fluid care program can extend the life of your systems significantly. It offers yearly testing of the heat transfer fluid in your system and tracks the changes in the fluid year to year so adjustments can be made to keep your systems working at its best.

US Units

Temperature °F	Viscosity cP	Thermal Cond. BTU/hr-ft-°F	Specific Heat BTU/lb-°F	Density lb/ft ³
-100	72.5	0.0749	0.416	51.9
-80	28.0	0.0736	0.426	51.4
-60	14.1	0.0722	0.436	50.9
-40	8.40	0.0709	0.446	50.3
-20	5.50	0.0696	0.456	49.8
0	3.90	0.0683	0.466	49.3
20	2.90	0.0670	0.476	48.8
40	2.30	0.0657	0.487	48.2
60	1.80	0.0644	0.497	47.7
80	1.50	0.0631	0.507	47.2
100	1.20	0.0618	0.517	46.7
120	1.00	0.0605	0.527	46.1
140	0.87	0.0592	0.537	45.6
160	0.76	0.0579	0.547	45.1
180	0.66	0.0566	0.557	44.6
200	0.58	0.0553	0.567	44.0
220	0.52	0.0539	0.577	43.5
240	0.46	0.0526	0.587	43.0
260	0.41	0.0513	0.598	42.5
280	0.37	0.0500	0.608	41.9
300	0.34	0.0487	0.618	41.4
320	0.31	0.0474	0.628	40.9
340	0.28	0.0461	0.638	40.3
350	0.27	0.0455	0.643	40.1

SI Units

Temperature °C	Viscosity mPa·s	Thermal Cond. W/m·K	Specific Heat kJ/kg·K	Density kg/m ³
-73	70.2	0.1272	1.742	833
-70	52.7	0.1266	1.753	831
-60	23.9	0.1246	1.791	823
-50	13.3	0.1226	1.829	816
-40	8.40	0.1206	1.867	808
-30	5.80	0.1186	1.905	800
-20	4.20	0.1166	1.943	793
-10	3.20	0.1146	1.981	785
0	2.50	0.1126	2.019	778
10	2.00	0.1106	2.057	770
20	1.60	0.1086	2.095	762
30	1.40	0.1066	2.133	755
40	1.20	0.1046	2.171	747
50	1.00	0.1026	2.209	740
60	0.87	0.1006	2.247	732
70	0.77	0.0986	2.285	724
80	0.68	0.0966	2.323	717
90	0.60	0.0946	2.361	709
100	0.54	0.0926	2.399	702
110	0.49	0.0906	2.437	694
120	0.44	0.0886	2.475	686
130	0.40	0.0866	2.513	679
140	0.37	0.0846	2.551	671
150	0.34	0.0826	2.589	664
160	0.31	0.0806	2.627	656
170	0.29	0.0786	2.665	649
177	0.27	0.0772	2.692	643

