

High-Temperature Heat Transfer Fluid

Process Applications

- High-temperature applications
- Pharmaceutical
- Textile manufacturing
- Metallurgy
- Plastic extrusion
- Injection molding
- Process cooling & heating
- Petroleum industry
- Rubber processing

■ Dynalene HT Overview

Dynalene HT is a high-temperature synthetic heat transfer fluid that exhibits some of the highest boiling, flash, and fire points compared to other commercially available heat transfer fluids. Additionally it exhibits low vapor pressures, toxicity and odor, allowing for safe use of the product in non-pressurized systems.

Dynalene HT is noncorrosive and very stable where temperatures exceed the thermal stress limitations of most competitive fluids, such as mineral oils that begin to degrade at lower temperatures.

■ Materials Compatibility

All materials must have the required resistance to temperature and pressure. Cadmium and zinc are not considered suitable as they catalyze the thermal breakdown of the fluid. Copper and brass may promote oxidation and should only be used in oxygen-free systems.

PTFE and other fluoropolymers are suitable for Dynalene HT up to the polymer manufacturer's recommended temperature. Thermoplastics such as PVC, polyethylene, and most types of rubber are not recommended.

■ Benefits of Choosing Dynalene HT

- High boiling, flash, and fire points
- Low vapor pressure
- Low toxicity
- Excellent thermal stability and thermo-physical properties
- Low odor
- High autoignition temperature
- Available worldwide
- Cost-effective
- Total fluid care option
- Proven performance

■ Quantity & Availability

Dynalene HT is usually purchased in 1, 5 and 55-gallon containers, but tanker quantities are also available. Pricing depends on quantity, and Dynalene, Inc. will work with you to try and fit your budget.

Recommended Temperature Ranges:

Closed Systems:

20°C (68°F) to 350°C (662°F)

Open Systems:

20°C (68°F) to 177°C (350°F)

■ Properties of Dynalene HT

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

Composition:	Synthetic organic hydrocarbon
Appearance:	Clear, light yellow
Odor:	Mild hydrocarbon odor
Pour Point:	< -34°C (< -30°F)
Initial Boiling Point:	385°C (725°F)
Flash Point (Closed):	200°C (392°F)
Autoignition Temp:	450°C (842°F)
Max Film Temp:	380°C (716°F)
Min Pumpability Limit:	-5°C (23°F)

■ Dynalene's Fluid Care Program

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

US Units

Temp. °F	Viscosity cP	Thermal Cond. BTU/hr-ft-°F	Specific Heat BTU/lb-°F	Density lb/ft ³
68	49.1	0.0768	0.370	65.0
80	32.2	0.0763	0.376	64.8
100	18.5	0.0755	0.386	64.3
120	11.9	0.0746	0.396	63.8
140	8.30	0.0737	0.406	63.3
160	6.10	0.0729	0.416	62.8
180	4.70	0.0720	0.426	62.3
200	3.70	0.0711	0.435	61.8
220	3.00	0.0703	0.445	61.3
240	2.50	0.0694	0.455	60.8
260	2.10	0.0686	0.465	60.3
280	1.80	0.0677	0.475	59.8
300	1.50	0.0668	0.485	59.3
320	1.30	0.0660	0.495	58.8
340	1.20	0.0651	0.505	58.3
360	1.10	0.0643	0.515	57.8
380	0.90	0.0634	0.525	57.3
400	0.83	0.0625	0.534	56.8
420	0.75	0.0617	0.544	56.3
440	0.68	0.0608	0.554	55.8
460	0.62	0.0599	0.564	55.3
480	0.57	0.0591	0.574	54.9
500	0.52	0.0582	0.584	54.4
520	0.48	0.0574	0.594	53.9
540	0.44	0.0565	0.604	53.4
560	0.41	0.0556	0.614	52.9
580	0.38	0.0548	0.623	52.4
600	0.36	0.0539	0.633	51.9
620	0.33	0.0531	0.643	51.4
640	0.31	0.0522	0.653	50.9
660	0.29	0.0513	0.663	50.4
662	0.29	0.0512	0.664	50.4

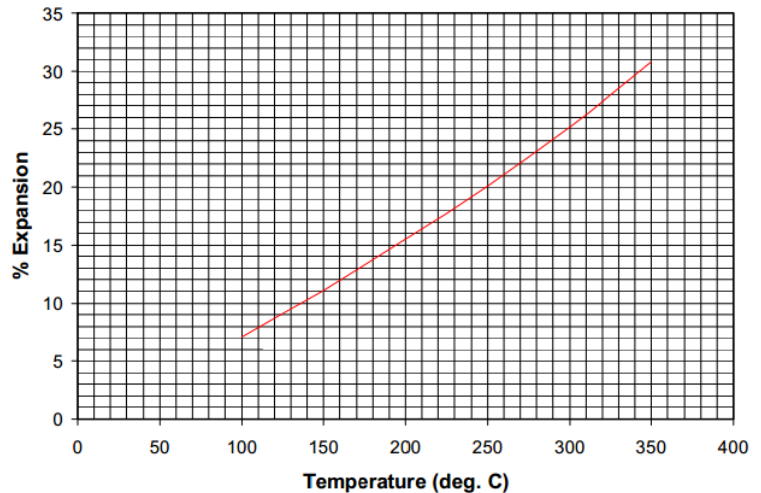
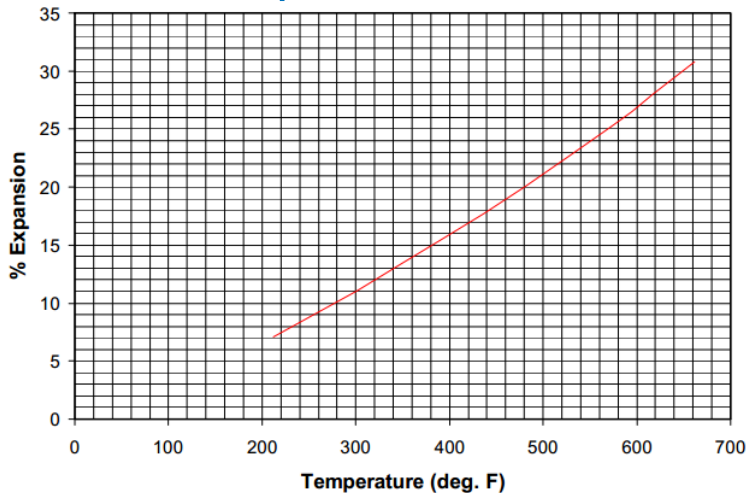
SI Units

Temp. °C	Viscosity mPa-s	Thermal Cond. W/m-K	Specific Heat kJ/kg-K	Density kg/m ³
20	49.0	0.1306	1.549	1044
40	16.8	0.1280	1.624	1030
60	8.30	0.1253	1.698	1016
80	4.90	0.1227	1.773	1001
100	3.30	0.1201	1.847	987
120	2.30	0.1174	1.922	973
140	1.70	0.1148	1.996	958
160	1.30	0.1122	2.071	944
180	1.10	0.1095	2.145	930
200	0.87	0.1069	2.220	915
220	0.72	0.1043	2.294	901
240	0.61	0.1016	2.369	887
260	0.52	0.0990	2.443	873
280	0.45	0.0963	2.518	858
300	0.39	0.0937	2.592	844
320	0.35	0.0911	2.667	830
340	0.31	0.0884	2.742	815
350	0.29	0.0871	2.779	808

Vapor Pressure

Temperature		Vapor Pressure	
°C	°F	psi	mmHg
140	284	0.001	0.08
160	320	0.007	0.38
180	356	0.025	1.28
200	392	0.073	3.75
220	428	0.17	9.00
240	464	0.39	20.3
260	500	0.78	40.5
280	536	1.42	73.5
300	572	2.90	150
320	608	4.57	236
340	644	8.12	420
350	662	10.15	525

Percent Expansion



Product Disclaimer

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