

Low Vapor Pressure, 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 MT Overview

Dynalene MT offers the process industry a versatile, practically non-toxic heat transfer fluid proven to be cost effective and thermally stable at temperatures up to 350°C (662°F).

Unlike less-stable mineral oils, Dynalene MT has demonstrated excellent performance over a wide range of temperatures without compromising system reliability or integrity, important factors when choosing a fluid for long-term use. MT has excellent thermal stability and is non-corrosive towards metals.

■ Materials Compatibility

All materials must have the required resistance to temperature and pressure. Cadmium and zinc are not considered suitable as they catalyze 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 MT 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 MT

- High boiling, flash, and fire points
- Wide temperature range
- Low toxicity
- Excellent thermal stability and thermo-physical properties
- High autoignition temperature
- Low vapor pressure
- Safe to use
- Available worldwide
- Cost-effective
- Total fluid care option

■ Quantity, & Availability

Dynalene MT is usually purchased in 1, 5, 55, and 265-gallon containers, but bulk tankers are also available. Pricing depends on quantity, and Dynalene, Inc. will work with you to try to fit your budget.

Recommended Temperature Range:

Closed Systems:

0°C (32°F) to 350°C (662°F)

■ Properties of Dynalene MT

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

| | |
|--------------|---------------------------|
| Composition: | Alkylated aromatics |
| Appearance: | Colorless to light yellow |
| Odor: | Low ester odor |

| | |
|-----------------------|---------------|
| Pour Point: | -40°C (-40°F) |
| Normal Boiling Point: | 330°C (626°F) |
| Flash Point: | 160°C (320°F) |

| | |
|--------------------------------|---------------|
| Autoignition Temp: | 410°C (770°F) |
| Max Film Temp: | 360°C (680°F) |
| Max Fluid Outlet Temp: | 350°C (662°F) |
| Pumpability Limit at 200 cSt : | -13°C (9°F) |

| | |
|-------------------------|-----------------------|
| Specific Heat at 200°C: | 2.157 J/g°C |
| Viscosity at 200°C: | 0.64 cP |
| Thermal Cond. at 200°C: | 0.115 W/m·K |
| Density at 200°C: | 825 kg/m ³ |

■ 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

| Temperature | Viscosity | Thermal Cond. | Specific Heat | Density |
|-------------|-----------|---------------|---------------|--------------------|
| °F | cP | BTU/hr-ft.°F | BTU/lb.°F | lb/ft ³ |
| 32 | 82.0 | 0.0750 | 0.411 | 60.71 |
| 41 | 59.1 | 0.0748 | 0.415 | 60.48 |
| 50 | 42.3 | 0.0746 | 0.419 | 60.25 |
| 59 | 30.9 | 0.0744 | 0.422 | 60.03 |
| 68 | 23.3 | 0.0741 | 0.426 | 59.80 |
| 86 | 14.4 | 0.0737 | 0.433 | 59.35 |
| 104 | 9.59 | 0.0733 | 0.439 | 58.89 |
| 140 | 5.13 | 0.0724 | 0.452 | 57.98 |
| 176 | 3.24 | 0.0715 | 0.464 | 57.07 |
| 212 | 2.22 | 0.0706 | 0.475 | 56.16 |
| 248 | 1.56 | 0.0697 | 0.485 | 55.25 |
| 284 | 1.23 | 0.0689 | 0.494 | 54.33 |
| 320 | 0.98 | 0.0680 | 0.502 | 53.42 |
| 356 | 0.78 | 0.0671 | 0.509 | 52.50 |
| 392 | 0.64 | 0.0662 | 0.516 | 51.59 |
| 428 | 0.53 | 0.0653 | 0.521 | 50.67 |
| 464 | 0.42 | 0.0644 | 0.526 | 49.75 |
| 500 | 0.35 | 0.0636 | 0.529 | 48.83 |
| 536 | 0.28 | 0.0627 | 0.532 | 47.91 |
| 572 | 0.24 | 0.0618 | 0.534 | 46.98 |
| 617 | 0.22 | 0.0607 | 0.535 | 45.83 |

SI Units

| Temperature | Viscosity | Thermal Cond. | Specific Heat | Density |
|-------------|-----------|---------------|---------------|-------------------|
| °C | mPa-s | W/m-K | kJ/kg-K | kg/m ³ |
| 0 | 82.0 | 0.1298 | 1.720 | 971.3 |
| 5 | 59.1 | 0.1294 | 1.736 | 967.7 |
| 10 | 42.3 | 0.1290 | 1.751 | 964.1 |
| 15 | 30.9 | 0.1286 | 1.766 | 960.4 |
| 20 | 23.3 | 0.1283 | 1.781 | 956.8 |
| 30 | 14.4 | 0.1275 | 1.810 | 949.5 |
| 40 | 9.59 | 0.1267 | 1.838 | 942.3 |
| 60 | 5.13 | 0.1252 | 1.891 | 927.7 |
| 80 | 3.24 | 0.1237 | 1.941 | 913.1 |
| 100 | 2.22 | 0.1222 | 1.986 | 898.6 |
| 120 | 1.56 | 0.1206 | 2.028 | 884.0 |
| 140 | 1.23 | 0.1191 | 2.066 | 869.3 |
| 160 | 0.98 | 0.1176 | 2.100 | 854.7 |
| 180 | 0.78 | 0.1161 | 2.131 | 840.0 |
| 200 | 0.64 | 0.1145 | 2.157 | 825.4 |
| 220 | 0.53 | 0.1130 | 2.180 | 810.7 |
| 240 | 0.42 | 0.1115 | 2.199 | 796.0 |
| 260 | 0.35 | 0.1100 | 2.214 | 781.3 |
| 280 | 0.28 | 0.1084 | 2.226 | 766.5 |
| 300 | 0.24 | 0.1069 | 2.233 | 751.8 |
| 325 | 0.22 | 0.1050 | 2.238 | 733.3 |

Vapor Pressure

| Temperature | | Pressure | Pressure | Pressure |
|-------------|-----|----------|----------|----------|
| °C | °F | psia | mmHg | kPa |
| 330 | 626 | 14.46 | 747.8 | 99.70 |
| 332 | 630 | 14.94 | 772.6 | 103.0 |
| 334 | 633 | 15.46 | 799.5 | 106.6 |
| 336 | 637 | 16.02 | 828.5 | 110.5 |
| 338 | 640 | 16.63 | 860.0 | 114.7 |
| 340 | 644 | 17.29 | 894.2 | 119.2 |
| 342 | 648 | 17.99 | 930.4 | 124.0 |
| 344 | 651 | 18.74 | 969.1 | 129.2 |
| 346 | 655 | 19.53 | 1010 | 134.7 |
| 348 | 658 | 20.37 | 1053 | 140.4 |
| 350 | 662 | 21.26 | 1099 | 146.6 |
| 352 | 666 | 22.19 | 1148 | 153.0 |
| 354 | 669 | 23.17 | 1198 | 159.8 |
| 356 | 673 | 24.19 | 1251 | 166.8 |

Product Disclaimer

The information contained in this entire publication is presented in good faith at “no charge” and is believed to be correct as of the date indicated. No representations or warranties are made as to its completeness or accuracy. The information listed is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. In no event will the seller be responsible for damages of any nature whatsoever resulting from the use of, or reliance upon, this information or the product to which this information refers. Nothing contained on this page is to be construed as a recommendation to use the product, process, equipment or formulation in conflict with any patent. No representation or warranty, expressed or implied, is made that the use of this product will not infringe any patent.

No representations or warranties, either expressed or implies, of merchantability, fitness for a particular purpose or for any other nature are made with respect to the information, or the product to which the information refers.

Contact Information

Corporate Headquarters

Dynalene, Inc.
5250 West Coplay Road
Whitehall, Pennsylvania 18052
Phone: 610-262-9686 / 1-877-244-5525
Fax: 610-262-7437
Email: info@dynalene.com
Website: www.dynalene.com

Midwest Location

248 Beinoris Dr
Wood Dale, IL 60191
Phone: 1-855-216-7639
Email: centralsales@dynalene.com

West Location

1701 S 5350 W
Salt Lake City, UT 84104
Phone: 1-877-244-5525
Email: westsales@dynalene.com