

THERMINOL[®]
from Eastman

THERMINOL[®] ADX-10

heat transfer fluid

Excellent pumpability at low temperatures

-56° to 250°C
(-69° to 480°F)



THERMINOL[®] ADX-10

heat transfer fluid

Physical and chemical characteristics

Therminol ADX-10 heat transfer fluid is designed for use in nonpressurized/low-pressure indirect heating systems. It delivers efficient, dependable, uniform process heat with no need for high pressures. The high boiling point of Therminol ADX-10 helps reduce the volatility and fluid leakage problems associated with other fluids.

The recommended maximum bulk and film temperatures for Therminol ADX-10 are based on industry-standard thermal studies. Operation at or below these temperature maximums can provide long service life under most operating conditions.

Actual fluid life is dependent on the total system design and operation and can vary by heat transfer fluid chemistry. As fluid ages, the formation of low- and high-boiling compounds may result. Low-boiling compounds should be vented from the system as necessary to a safe location away from personnel and sources of ignition and in compliance with applicable regulations and laws. The high-boiling compounds can be very soluble in the fluid. Significant overheating or fluid contamination will accelerate decomposition and may result in increased high-boiler and solids concentrations. Excess solids can typically be filtered for removal.

Eastman recommends that systems using Therminol ADX-10 fluid be blanketed with an atmosphere of inert gas to protect against the effects of fluid oxidation on its performance and life expectancy. Pressure relief device(s) should be installed where required.

Therminol ADX-10 is noncorrosive to metals commonly used in the construction of heat transfer systems.

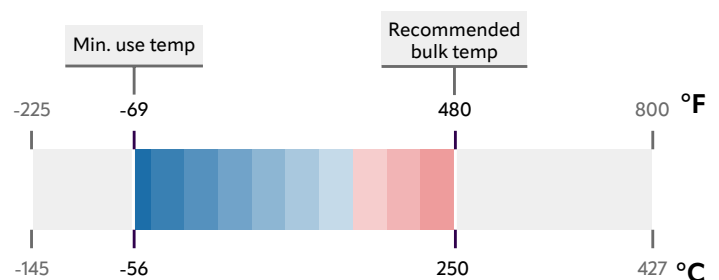
While Therminol ADX-10 has a relatively high flash point, it is not classified as a fire-resistant heat transfer fluid. Consequently, the use of protective devices may be required to minimize fire risk, and users of Therminol ADX-10 should check with their safety and risk management experts for specific instructions.

Eastman Therminol ADX-10 heat transfer fluid is a low-viscosity, synthetic organic fluid that is particularly recommended for indirect liquid phase process heating at medium temperatures up to 250°C (480°F).

Therminol ADX-10 offers a number of benefits when it is used as a single fluid in combined heating and cooling systems:

- Excellent heat transfer coefficient
- Easy start-up and shutdown at low temperatures
- Low-temperature pumpability down to temperatures of -56°C (-69°F)
- Eliminates the need for steam or other forms of heat tracing due to its low pour point ($-80^{\circ}\text{C}/-112^{\circ}\text{F}$) and excellent low-temperature viscosity
- Low fire risk at ambient temperatures

Therminol ADX-10 is available in Europe, the Middle East and Africa. Contact your local Eastman Therminol sales representative for more information.



Typical properties^a

Appearance	Clear, pale yellow liquid
Composition	Synthetic aromatic hydrocarbon mixture
Recommended bulk temperature	250°C (480°F)
Maximum film temperature	280°C (535°F)
Normal boiling point	293°C (559°F)
Pumpability, at 300 mm ² /s (cSt)	-41°C (-41°F)
Pumpability, at 2,000 mm ² /s (cSt)	-56°C (-69°F)
Autoignition temperature (DIN 51794)	327°C (621°F)
Pour point (ISO 3016)	-80°C (-112°F)
Total acidity (ASTM D664)	<0.2 mg KOH/g
Average molecular weight	236
Moisture content, maximum (ASTM E203)	150 ppm
Dielectric constant @ 23°C (ASTM D924)	2.26

^aThese data are based on samples tested in the laboratory and are not guaranteed for all samples. Contact us for complete sales specifications for Therminol ADX-10 fluid. Does not constitute an express warranty. See disclaimer on the back page of this brochure.



To create your own customized table
with preferred properties, units of measure,
and temperature intervals, visit
Therminol.com/resources
and download the Therminol heat transfer fluid calculator.

For technical service, visit the contact page on therminol.com.

Liquid properties of Therminol ADX-10 heat transfer fluid by temperature^a (SI units)

Temperature		Liquid density	Liquid heat capacity	Heat of vaporization	Liquid enthalpy ^b	Liquid thermal conductivity	Liquid viscosity ^c		Vapor pressure ^d
°C	°F	kg/m ³	kJ/(kg·K)	kJ/kg	kJ/kg	W/(m·K)	cP (mPa·s)	cSt (mm ² /s)	kPa
-56	-69	909	1.61	441.5	-64.9	0.1334	1,810	2,000	—
-50	-58	904	1.64	436.9	-54.8	0.1326	783	866	—
-40	-40	898	1.68	429.5	-38.2	0.1314	250	279	—
-30	-22	891	1.72	422.1	-21.3	0.1302	98.9	111	—
-20	-4	884	1.76	414.8	-3.9	0.1289	46.1	52.1	—
-10	14	877	1.80	407.5	13.9	0.1277	24.5	27.9	—
0	32	870	1.84	400.2	32.0	0.1264	14.4	16.5	—
10	50	864	1.88	393.1	50.6	0.1252	9.19	10.6	—
20	68	857	1.91	385.9	69.5	0.1239	6.28	7.32	—
30	86	850	1.95	378.9	88.9	0.1226	4.52	5.32	—
40	104	843	1.99	371.9	108.6	0.1213	3.40	4.04	—
50	122	836	2.03	364.9	128.7	0.1200	2.65	3.17	0.001
60	140	829	2.07	358.0	149.2	0.1187	2.13	2.57	0.003
70	158	822	2.10	351.2	170.0	0.1173	1.75	2.13	0.008
80	176	815	2.14	344.4	191.3	0.1160	1.47	1.81	0.018
90	194	808	2.18	337.7	212.9	0.1146	1.26	1.56	0.037
100	212	801	2.21	331.1	234.8	0.1132	1.09	1.36	0.074
110	230	794	2.25	324.5	257.1	0.1118	0.956	1.20	0.139
120	248	787	2.29	317.9	279.8	0.1104	0.846	1.08	0.251
130	266	780	2.32	311.5	302.9	0.1090	0.756	0.969	0.433
140	284	772	2.36	305.0	326.2	0.1076	0.680	0.880	0.720
150	302	765	2.39	298.7	350.0	0.1061	0.615	0.804	1.16
160	320	758	2.42	292.3	374.0	0.1046	0.559	0.738	1.81
170	338	750	2.46	286.0	398.5	0.1031	0.511	0.681	2.74
180	356	742	2.49	279.8	423.2	0.1016	0.469	0.631	4.06
190	374	735	2.53	273.6	448.3	0.1000	0.431	0.587	5.87
200	392	727	2.56	267.4	473.7	0.0985	0.398	0.547	8.31
210	410	719	2.59	261.2	499.5	0.0969	0.368	0.512	11.6
220	428	711	2.62	255.0	525.5	0.0953	0.341	0.480	15.8
230	446	703	2.66	248.9	551.9	0.0936	0.317	0.451	21.2
240	464	694	2.69	242.7	578.7	0.0919	0.295	0.424	28.0
250	482	686	2.72	236.5	605.7	0.0902	0.275	0.400	36.6
260	500	677	2.75	230.3	633.1	0.0885	0.256	0.378	47.1
270	518	668	2.78	224.1	660.7	0.0867	0.239	0.358	60.0
280	536	659	2.81	217.8	688.7	0.0848	0.224	0.339	75.5
290	554	650	2.85	211.5	717.0	0.0829	0.209	0.322	94.0

^aRecommended bulk temperature 250°C (480°F). These data are based on samples tested in the laboratory and are not guaranteed for all samples. Contact us for complete sales specifications for Therminol ADX-10 fluid. ^bLiquid enthalpy basis is -178°C (0°F). ^c1 cSt = 1 mm²/s and 1 mPa·s = 1 cP. ^d100 kPa = 1 bar.

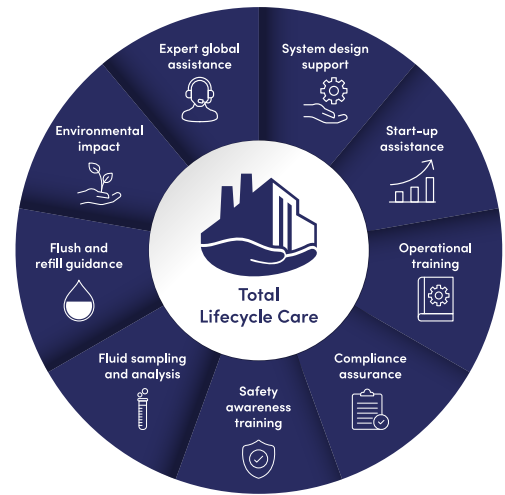
Liquid properties of Therminol® ADX-10 heat transfer fluid by temperature^a (English units)

Temperature		Liquid density		Liquid heat capacity	Heat of vaporization	Liquid enthalpy ^b	Liquid thermal conductivity	Liquid viscosity ^c		Vapor pressure ^d
°F	°C	lb/gal	lb/ft ³	Btu/(lb·°F)	Btu/lb	Btu/lb	Btu/(ft·h·°F)	lb/(ft·h)	cSt (mm ² /s)	psia
-69	-56	7.58	56.7	0.385	190.0	-279	0.0771	4,390	2,000	—
-60	-51	7.55	56.5	0.390	188.3	-24.4	0.0768	2,180	1,000	—
-40	-40	7.49	56.0	0.401	184.8	-16.5	0.0760	606	279	—
-20	-29	7.43	55.6	0.411	181.2	-8.3	0.0752	218	101	—
0	-18	7.37	55.1	0.422	177.7	0.0	0.0744	95.9	44.9	—
20	-7	7.30	54.6	0.433	174.3	8.5	0.0736	491	23.2	—
40	4	7.24	54.2	0.443	170.8	17.3	0.0728	28.3	13.5	—
60	16	7.18	53.7	0.454	167.4	26.3	0.0720	17.9	8.59	—
80	27	7.11	53.2	0.464	164.0	35.4	0.0711	12.1	5.89	—
100	38	7.05	52.7	0.474	160.7	44.8	0.0703	8.74	4.28	—
120	49	6.98	52.2	0.484	157.3	54.4	0.0695	6.59	3.25	—
140	60	6.92	51.8	0.494	154.0	64.2	0.0686	5.16	2.57	—
160	71	6.86	51.3	0.504	150.8	74.2	0.0678	4.16	2.09	0.001
180	82	6.79	50.8	0.514	147.5	84.3	0.0669	3.44	1.75	0.003
200	93	6.73	50.3	0.523	144.3	94.7	0.0660	2.90	1.49	0.007
220	104	6.66	49.8	0.533	141.2	105.3	0.0651	2.48	1.29	0.014
240	116	6.59	49.3	0.542	138.0	116.0	0.0642	2.16	1.13	0.028
260	127	6.53	48.8	0.552	134.9	127.0	0.0633	1.90	1.00	0.053
280	138	6.46	48.3	0.561	131.8	138.1	0.0624	1.68	0.898	0.094
300	149	6.39	47.8	0.570	128.8	149.4	0.0614	1.50	0.812	0.160
320	160	6.32	47.3	0.579	125.8	160.9	0.0605	1.35	0.738	0.262
340	171	6.25	46.8	0.588	122.8	172.6	0.0595	1.22	0.675	0.416
360	182	6.18	46.2	0.597	119.8	184.5	0.0585	1.11	0.621	0.640
380	193	6.11	45.7	0.606	116.8	196.5	0.0575	1.01	0.573	0.958
400	204	6.04	45.2	0.615	113.8	208.7	0.0565	0.929	0.531	1.40
420	216	5.96	44.6	0.624	110.9	221.1	0.0555	0.853	0.494	2.00
440	227	5.89	44.0	0.632	108.0	233.6	0.0544	0.785	0.460	2.79
460	238	5.81	43.5	0.641	105.0	246.4	0.0534	0.725	0.430	3.82
480	249	5.73	42.9	0.649	102.1	259.3	0.0523	0.670	0.403	5.15
500	260	5.65	42.3	0.658	99.1	272.4	0.0511	0.620	0.378	6.83
520	271	5.57	41.7	0.666	96.1	285.6	0.0500	0.575	0.356	8.93
540	282	5.48	41.0	0.674	93.1	299.0	0.0488	0.533	0.336	11.5

Total Lifecycle Care™

Total Lifecycle Care is a comprehensive service that uses analytics, sampling and training to prevent heat transfer system failures, ensuring safe, efficient and uninterrupted operations.

- Offers industry-leading technical support
- Provides data through Fluid Genius™ for informed decision-making
- Helps minimize unexpected downtime and maintenance costs
- Assists in maximizing fluid life
- Enables safe working environments through tailored safety training
- Helps keep systems running smoothly



Comprehensive support services

- **In-service heat transfer fluid sample analysis**

Eastman provides comprehensive testing services to extend heat transfer fluid life and ensure system performance by detecting contamination, moisture and degradation through key tests like acid number, viscosity, insoluble solids and moisture content.



- **Fluid Genius™**

Fluid Genius is a web-based portal and sampling service that simplifies fluid sample management by providing expert analysis, fluid condition monitoring, lifespan prediction, early maintenance alerts, technical support and access to a comprehensive knowledge base. Learn more at fluidgenius.net.



Operational efficiency

- **System design support**

Eastman collaborates with leading manufacturers to provide expert support in heat transfer system design, performance, fluid selection, and compliance, offering seminars, technical visits, and on-site audits to improve system reliability and efficiency.



- **Start-up assistance**

Eastman offers start-up assistance by reviewing procedures and recommending improvements to streamline systems and reduce common issues, with support available from local technical specialists or on-site visits.



- **Flush and refill guidance**

Therminol FF is specially formulated to clean liquid-phase heat transfer systems. After flushing with Therminol FF, refill the system with the appropriate Eastman heat transfer fluid to ensure optimal performance. Contact your local Eastman technical specialist to learn more and get expert guidance.



- **Compliance support**

Our team provides guidance to help you achieve and maintain regulatory compliance related to safety, health and environmental standards, ensuring your operations meet the necessary requirements.



- **Environmental impact**

Eastman supports your sustainability goals by advising on waste heat recovery and water-lean utility deployments using Therminol products to reduce CO₂ emissions and water consumption.



Operational and safety awareness training

- **Operational training**

Eastman's customized training programs improve expertise in fluid selection and heat transfer system operation for technicians, supervisors, maintenance staff and engineers through core and specialized sessions to enhance design, improve safety and reduce costs.



- **Safety awareness training**

At Eastman, we approach safety with a zero-incident mindset. We offer our customers safety awareness training that focuses on the design start-up, operation and maintenance of heat transfer fluid systems to help ensure safe, efficient operations.



- **Expert global assistance**

Get direct access to experienced technical service specialists who can help answer questions regarding heat transfer fluid selection, system start-ups, system design and operational issues.



For more information, visit therminol.com.

EASTMAN

Eastman Corporate Headquarters

P.O. Box 431
Kingsport, TN 37662-5280 U.S.A.

U.S.A. and Canada, 800-EASTMAN (800-327-8626)
Other locations, +(1) 423-229-2000

eastman.com/locations

Although the information and recommendations set forth herein are presented in good faith, Eastman Chemical Company ("Eastman") and its subsidiaries make no representations or warranties as to the completeness or accuracy thereof. You must make your own determination of its suitability and completeness for your own use, for the protection of the environment, and for the health and safety of your employees and purchasers of your products. Nothing contained herein is to be construed as a recommendation to use any product, process, equipment, or formulation in conflict with any patent, and we make no representations or warranties, express or implied, that the use thereof will not infringe any patent. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND NOTHING HEREIN WAIVES ANY OF THE SELLER'S CONDITIONS OF SALE.

Safety Data Sheets providing safety precautions that should be observed when handling and storing our products are available online or by request. You should obtain and review available material safety information before handling our products. If any materials mentioned are not our products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed.

© 2026 Eastman. Eastman brands referenced herein are trademarks of Eastman or one of its subsidiaries or are being used under license. Non-Eastman brands referenced herein are trademarks of their respective owners.