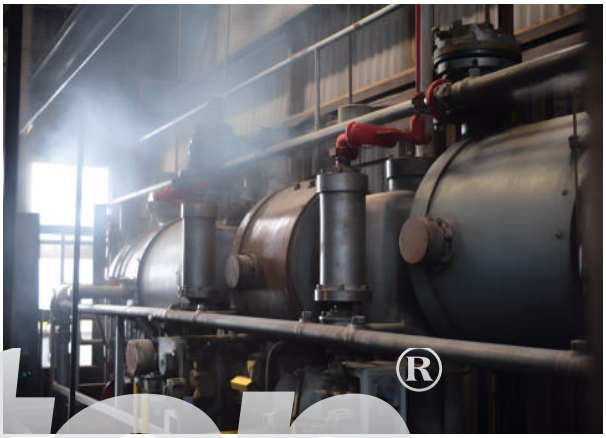
Synthetic heat transferfluid(MTFD320)

Performance Overview

Maxtop Synthetic Thermal Conductive Oil (MTFD320) is made from 99.9% high-purity chemically synthesized base oil, with the addition of the self-developed MAXTOP Meistuo thermal conductive oil composite additive. It is developed through multiple patented formula technologies and multiple self-developed long-term tests for resisting coking under both high temperatures and oxidation conditions. The commercially available chemically synthesized thermal conductive oils generally do not contain any additives. During use, they are prone to thickening and gelling (coking) due to oxygen oxidation. However, the additive system developed by Meistuo Company does not cause these problems.It is fully compatible with other brands of alkylbenzene heat transfer oil.



Application scenario

Closed thermal oil heating system usage: The maximum oil film temperature is 340 - 350℃, and the maximum main body temperature is 320℃. Users must use it in an open system, and the temperature of the upper tank in contact with the air must be lower than 70℃.

Product features

01

Excellent thermal stability. Its thermal stability temperature is 20-30℃ higher than that of hydrogenated thermal oil, mineral thermal oil and alkylbenzene synthetic thermal oil. The thermal conductivity is extremely good.

02

Proper use will not cause deposits to form in the boiler system, will not cause coking, will not block the pipes, and the energy consumption will not increase significantly.

03

The acid value and the increase in residual carbon of the running synthetic heat transfer oil (MTFD320) are both very small.

04

The energy-saving effect is remarkable, and the service life is long. With correct usage, it can last for over 10 years. No need to clean the boiler and heat exchange equipment when changing the heat transfer oil. Low carbon and environmentally friendly.

No. 138, Guanshan Road, Shuangliu District, Chengdu, China (Sichuan) Pilot Free Trade Zone
TEL：+8613541155698 EMAIL：maxtop@maxtop-oil.com
TEL：+864008330667 Website：www.maxtop-oil.com

Typical data of synthetic heat transfer oil (MTFD320)

Project	Quality indicators
Appearance	Light yellow transparent liquid
Density (at 20℃) / (Kg/m3)	1010.2
Viscosity at 40℃ mm2/s	11.15
Viscosity at 100℃ mm2/s	2.28
Viscosity at 200℃ mm2/s	0.8
Viscosity at 300℃ mm2/s	0.54
Flash point (open cup), ℃	178
Flash point (closed cup), ℃	163
Autoignition point, ℃	452
Pour point, ℃	-39
Copper strip corrosion (100℃, 3h), grade	1a
Residues (mass fraction), %	0.01
Acid value mgKOH/g	0.01
Initial boiling point/℃	276.5
Boiling point of 2% distillate/℃	309.5
Water content (mg/kg), %	25
Thermal stability (320℃, 720h) deterioration rate less than	10%
Oil film temperature	350℃
320℃ under high temperature / 70℃ under oxidation 720 hours	By
320℃ under high temperature / 100℃ under oxidation 240 hours	By

- The above data represent the typical values of the current product. The data for each subsequent batch of products may vary within the allowable range set by Meistao's quality standards.

No. 138, Guanshan Road, Shuangliu District, Chengdu, China (Sichuan) Pilot Free Trade Zone
TEL：+8613541155698 EMAIL：maxtop@maxtop-oil.com
TEL：+864008330667 Website：www.maxtop-oil.com

Performance data of synthetic heat transfer oil (MTFD320) at different temperatures

Temperature (℃)	Density (kg/m^3)	Specific heat (kJ/kg·K)	Thermal conductivity (W/m·K)	Viscosity (kinematic viscosity)(mm^2/s)	Saturated vapor pressure(kPa)
-20	1035.6	1.65	0.108	971.71	
-10	1028.3	1.68	0.110	300.00	
0	1021.0	1.71	0.112	164.70	
10	1015.6	1.74	0.114	54.35	
20	1010.2	1.77	0.116	29.02	
30	1004.8	1.80	0.118	17.25	
40	999.4	1.83	0.120	11.15	
50	994.0	1.86	0.122	7.71	
60	988.6	1.89	0.124	5.62	
70	983.2	1.92	0.126	4.28	
80	977.8	1.95	0.128	3.37	
90	972.4	1.98	0.130	2.74	
100	967.0	2.01	0.132	2.28	
110	961.6	2.04	0.134	1.94	
120	956.2	2.07	0.136	1.67	
130	950.8	2.10	0.138	1.47	4.5
140	945.4	2.13	0.140	1.31	6.4
150	940.0	2.16	0.142	1.18	9.0
160	934.6	2.19	0.144	1.07	12.5
170	929.2	2.22	0.146	0.99	17.2
180	923.8	2.25	0.148	0.91	23.4
190	918.4	2.28	0.150	0.85	31.5
200	913.0	2.31	0.152	0.80	42.0
210	907.6	2.34	0.154	0.75	55.3
220	902.2	2.37	0.156	0.72	72.1
230	896.8	2.40	0.158	0.68	93.0
240	891.4	2.43	0.160	0.65	119.0
250	886.0	2.46	0.162	0.63	151.0
260	880.6	2.49	0.164	0.61	190.0
270	875.2	2.52	0.166	0.59	238.0
280	869.8	2.55	0.168	0.57	296.0
290	864.4	2.58	0.170	0.56	366.0
300	859.0	2.61	0.172	0.54	450.0
310	853.6	2.64	0.174	0.53	551.0
320	848.2	2.67	0.176	0.52	671.0

No. 138, Guanshan Road, Shuangliu District, Chengdu, China (Sichuan) Pilot Free Trade Zone
TEL：+8613541155698 EMAIL：maxtop@maxtop-oil.com
TEL：+864008330667 Website：www.maxtop-oil.com