Maxothermie®

MAXOTHERMIE-600™

Synthetic Heat Transfer Fluid

HEATRAN ENGINEERS

HEATRAN

Maxothermie 600
HEAT TRANSFER FLUID

Maxothermie-600 is a synthetic heat transfer fluid used for the transfer of process heat in industries ranging from Textiles, Plywood, Chemicals, Vegetable oil extraction, Paper, Rubber, Road equipment, Paints, Pharma, Food, OEMs, Engineering, and allied industries. Maxothermie-600 has been specially formulated by process experts to withstand a wide range of operating process temperatures without losing its inherent service qualities and performance

Operating process range: 14°F to 608°F
Withstand Temperature Service Cycles
High Resistance to Oxidation
Long Service Life
Miscible / Mixable with all mineral and Synthetic Thermal Fluid Oil
Expert advice on Systems & Solutions

Maxothermie 600 - Technical Properties

Appearance	Clear Yellow Fluid
Composition	Synthetic Hydrocarbon Mixture
Maximum Bulk Temperature	310° C(extended use up to 320 C)
Maximum Film Temperature	345° C
Kinematic Viscosity @40°C	19 mm2/ s (cSt)
Density @25°C	868 kg/m2
Flash Point (ASTM - D92)	193° C
Fire Point (ASTM - D92)	242° C
Auto Ignition Temperature (ASTM - D2155)	378° C
Pour Point	-40° C
Boiling Point @ 1013 mbar	370° C
Corefficient of Thermal Expansion	0.00096/C
Moisture Content	<200 ppm

PHYSICAL AND CHEMICAL CHARACTERISTICS

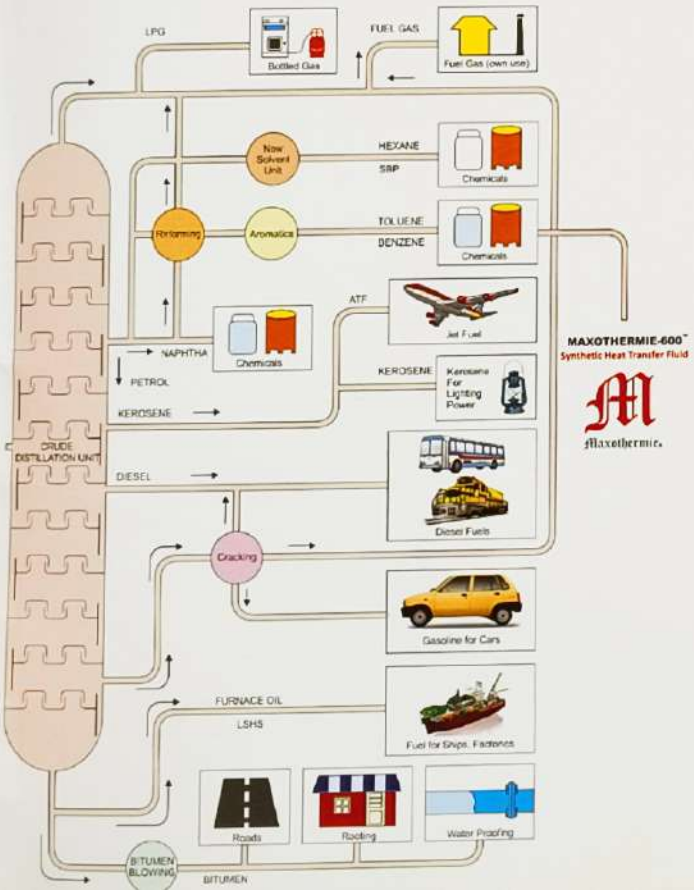
Maxothermie 600 has an optimum economic operating range of 14 °F to 608 °F (-10 °C to 310 °C). It can be used to an extended bulk temperature of 608°F (320 °C).

Maxothermie 600 fluid is designed for use in non-pressurized / low-pressure, indirect heating systems. It delivers efficient, dependable, uniform process heat with no need for high pressures. The high boiling point of Maxothermie 600 helps reduce the volatility and fluid leakage problems associated with other fluids.

While Maxothermie 600 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. The insurer of your property should be consulted in relation to this matter. Maxothermie 600 has been shown to be significantly less sensitive than mineral oils to the negative consequences (sludging, fouling) of thermal oxidation

However, to further minimize the potential for fluid oxidation, systems utilizing heat transfer fluids should be blanketed with an inert atmosphere. A system pressure relief device also should be provided.

Maxothermie 600 is non-corrosive to metals commonly used in the design of heat transfer systems. The recommended optimum economic bulk temperature (590°F/310°C) is based on detailed thermal studies. Operation at or below this temperature provides long service life under most operating conditions. Maxothermie-600 can be utilized up to the extended maximum use temperature of 608°F (320°C).



Actual fluid life is quite dependent on system design and operation. As fluid ages, the formation of volatile (low boiling) products and high-boiling compounds may result. Volatile products should be vented from the system to a non-hazardous area away from personnel and sources of ignition. The high-boiling compounds are generally soluble in the fluid.
Overheating or fluid contamination will accelerate this decomposition and may result in separation of the high-boiling compounds as solids (tar, coke, etc.). These solids could be detrimental to the operation of the system and, when detected, should be removed.

Maxothermie is miscible / mixable with any type of synthetic or mineral thermic fluids.

Customer Advisory Program is available in a customized structure to meet the specific needs of the clients. It is being advised by our Technical representative apart from Third Party Accomplished professionals/Experts / Consultants from this field to assist you in following areas:

Thermic Fluids:

- Pre-commissioning & commissioning assistance
- System preventive maintenance
- Service life / useful life estimation of Thermal Oils
- Remaining Useful Life Analysis (RULA) study & impact assessment.
- Sample analysis & recommendations
- Cleaning of choked Thermic Fluids systems, Hot Flash Fluids & Refill information

Thermic Fluid Heaters & Systems:

- Consultancy in selection of Thermic Fluid Heaters / load assessment & Sizing
- Consultancy on High Temperature Thermic Fluid Heating Systems
- Trouble shooting and advise on problems of fired heaters.
- Up-gradation, Retrofitting and fuel conversion in the heating systems
- Cleaning of choked Thermic Fluid / Boiler systems
- Retrofitting / up-gradation of Air Heaters / Thermic Fluid Heaters / Boilers / Heat Exchangers.

TEMP	LIQUID DENSITY	LIQUID HEAT CAPACITY	LIQUID VISCOSITY		LIQUID THERMAL CONDUCTIVITY	VAPOUR PRESSURE
°C	Kg/m3	KJ/(Kg.K)	cP	cSt	W/(m.K)	mm Hg
-20	900	1.77	757	842	0.1335	-
-10	895	1.81	310	347	0.1322	-
0	883	1.83	143	163	0.1307	-
10	878	1.87	73.9	84	0.1297	-
20	873	1.93	41.8	47.9	0.1286	-
30	863	1.93	25.4	29.1	0.1274	-
40	859	1.99	16.5	19.2	0.1265	-
50	854	2.03	11.2	13.4	0.1250	-
60	847	2.07	7.96	9.42	0.1241	-
70	841	2.11	5.91	7.05	0.1228	-
80	835	2.15	4.56	5.45	0.1217	-
90	828	2.18	3.58	4.35	0.1206	-
100	820	2.21	2.91	3.54	0.1194	-
110	813	2.25	2.41	2.95	0.1183	-
120	806	2.28	2.13	2.52	0.1165	-
130	799	2.37	1.75	2.17	0.1159	1.08
140	791	2.35	1.53	1.92	0.1147	1.67
150	786	2.41	1.32	1.59	0.1136	2.59
160	777	2.46	1.17	1.49	0.1127	3.78
170	771	2.49	1.08	1.36	0.1118	5.57
180	765	2.53	0.923	1.2	0.1099	8.02
190	758	2.56	0.827	1.09	0.1086	11.8
200	750	2.53	0.754	1.01	0.1076	16.12
210	743	2.59	0.685	0.925	0.1065	22.4
220	736	2.68	0.629	0.857	0.1054	30.9
230	728	2.72	0.572	0.794	0.1045	41.7
240	718	2.79	0.537	0.745	0.1031	55.8
250	710	2.84	0.478	0.684	0.1017	74.7
260	703	2.88	0.453	0.653	0.1002	95.6
270	694	2.93	0.419	0.616	0.0993	127
280	682	2.96	0.392	0.578	0.0982	169
290	676	2.97	0.367	0.538	0.0976	206
300	669	3.01	0.335	0.498	0.0959	263
310	660	3.12	0.317	0.469	0.0942	328
320	654	3.16	0.303	0.455	0.0933	367

NOTE: The above quoted values are typical and obtained by product sample testing systematically in the laboratory. Slight changes may be exhibited from sample to sample with minor changes in data. Specifications are subject to change. Contact Maxothermie, USA or their representatives near to you for latest specifications.

Offers of Other Products: Medium and low temperatures synthetic heat transfer products: Maxothermie-550, Maxothermie-HFF (Hot Flash Fluid) for system cleaning; , Maxothermie-FP (Food Grade).

*Note: All information given in the product data are based on the records and technical descriptions of product being manufactured as per the requirements and recommendations of the final product specifications believed to be correct and it is being presented in good faith and best of the knowledge. Heatran Engineers or their any representatives or its related companies are no way responsible for its use and no warranty or no representation are made thereof. The product specifications are subject to change without prior information or notice. In any circumstances, Heatran will not be responsible for its use other than intended and in no event Heatran will be responsible in case of any damages or losses of any nature during its use or subsequently to any of the equipment or materials or anyone directly or indirectly involved. No expressed or implied warranties or recommendations are made for its purpose and usability and it is a sole responsibility of user thereof. The data or information should not be used other than any purpose proposed.

MAXOTHERMIE range Heat Transfer Fluid by Capital Pure LLC, USA., in collaboration with Heatran Engineers, Ahmedabad, INDIA.

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