Maxothermie®

MAXOTHERMIE-550™

Synthetic Heat Transfer Fluid

Maxothermie®

Synthetic Heat Transfer Fluids By Capital Pure LLC, USA

Maxothermie® 550

HEAT TRANSFER FLUID

Maxothermie-550 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-550 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 599°F

Withstand Temperature Service Cycles

High Resistance to Oxidation

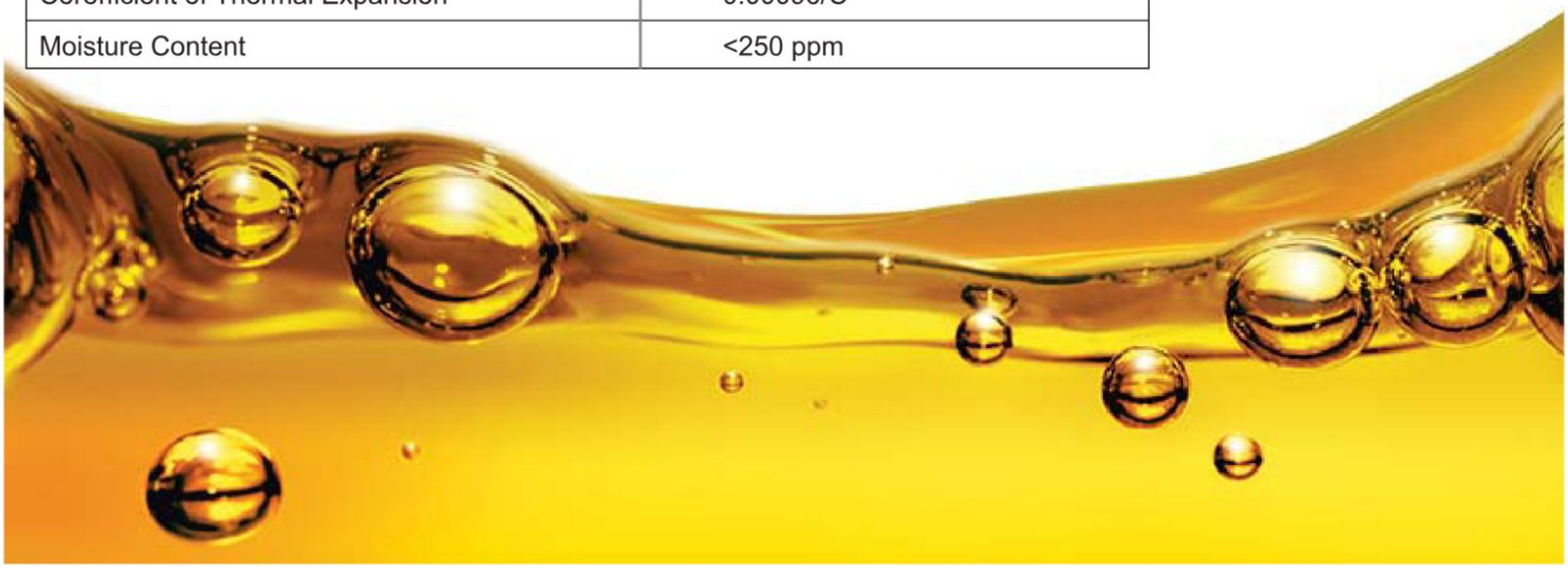
Long Service Life

Miscible / Mixable with all mineral and Synthetic Thermal Fluid Oil

Expert advice on Systems & Solutions

Maxothermie® 550 - Technical Properties

Appearance	Clear Yellow Fluid
Composition	Synthetic Hydrocarbon Mixture
Maximum Bulk Temperature	305° C(extended use up to 315° C)
Maximum Film Temperature	335° C
Kinematic Viscosity @40°C	19 mm2/ s (cSt)
Density @25°C	867 kg/m2
Flash Point (ASTM - D92)	193° C
Fire Point (ASTM - D92)	238° C
Auto Ignition Temperature (ASTM - D2155)	366° C
Pour Point	-40° C
Boiling Point @ 1013 mbar	351° C
Corefficient of Thermal Expansion	0.00096/C
Moisture Content	<250 ppm



PHYSICAL AND CHEMICAL CHARACTERISTICS

Maxothermie 550 has an optimum economic operating range of 14°F to 581°F (-10°C to 305°C).It can be used to an extended bulk temperature of 599°F (315°C).

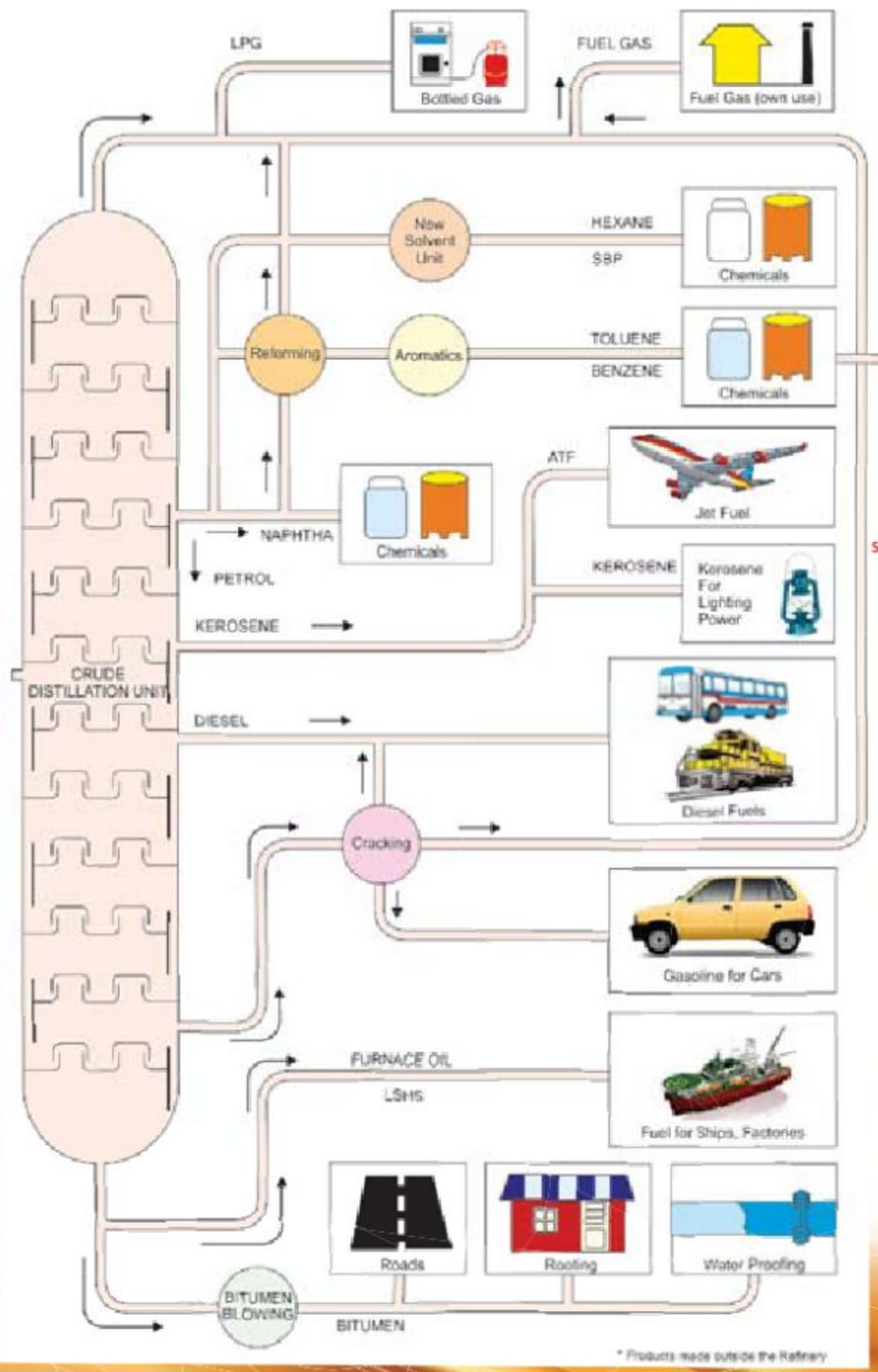
Maxothermie 550 fluid is designed for use in non-pressurized / low-pressure, indirect heating systems. It delivers efficient, dependable, uniform process heat with no need for high pressures. The high boiling point of Maxothermie 550 helps reduce the volatility and fluid leakage problems associated with other fluids.

While Maxothermie 550 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 550 has been shown to be significantly less sensitive than mineral oils to the negative consequences (sludging, fouling) of thermal oxidation.

systems. The recommended optimum economic bulk temperature (581°F/305°C) is based on detailed thermal studies. Operation at or below this temperature provides long service life under most operating conditions. Maxothermie-550 can be utilized up to the extended maximum use temperature of 599°F (315°C).

TEMP	LIQUID DENSITY	LIQUID HEAT CAPACITY	LIQUID THERMAL CONDUCTIVITY	LIQUID VISCOSITY		VAPOUR PRESSURE
°C	Kg/m3	KJ/(Kg.K)	W/(m.K)	cP	cSt	mm Hg
-20	898	1.77	0.1335	754	840	—
-10	890	1.81	0.1322	307	345	—
0	883	1.83	0.1307	142	161	—
10	876	1.87	0.1297	71.83	82.0	—
20	872	1.93	0.1286	40.55	46.5	—
30	864	1.93	0.1274	24.45	28.3	—
40	856	1.99	0.1265	16.09	18.8	—
50	851	2.03	0.1250	11.06	13.0	—
60	843	2.07	0.1241	7.90	9.37	—
70	837	2.11	0.1228	5.87	7.01	—
80	830	2.15	0.1217	4.49	5.41	0.011
90	823	2.18	0.1206	3.54	4.30	0.019
100	817	2.21	0.1194	2.86	3.50	0.032
110	809	2.25	0.1183	2.35	2.90	0.054
120	803	2.28	0.1165	1.98	2.47	0.088
130	796	2.37	0.1159	1.68	2.11	0.140
140	788	2.35	0.1147	1.45	1.84	0.219
150	783	2.41	0.1136	1.28	1.64	0.334
160	776	2.46	0.1127	1.13	1.45	0.501
170	769	2.49	0.1118	1.00	1.30	0.738
180	761	2.53	0.1099	0.898	1.18	1.07
190	753	2.56	0.1086	0.806	1.07	1.53
200	746	2.53	0.1076	0.739	0.99	2.15
210	739	2.59	0.1065	0.676	0.915	2.98
220	733	2.68	0.1054	0.621	0.847	4.07
230	725	2.72	0.1045	0.568	0.783	5.51
240	717	2.79	0.1031	0.524	0.731	7.37
250	710	2.84	0.1017	0.484	0.681	9.76
260	703	2.88	0.1002	0.446	0.635	12.8
270	695	2.93	0.0993	0.416	0.598	16.6
280	687	2.96	0.0982	0.382	0.556	21.3
290	678	2.97	0.0976	0.354	0.522	27.2
300	670	3.01	0.0959	0.326	0.487	34.4
310	661	3.12	0.0942	0.303	0.459	43.1
320	653	3.16	0.0933	0.285	0.437	53.7

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.



MAXOTHERMIE-550™
Synthetic Heat Transfer Fluid

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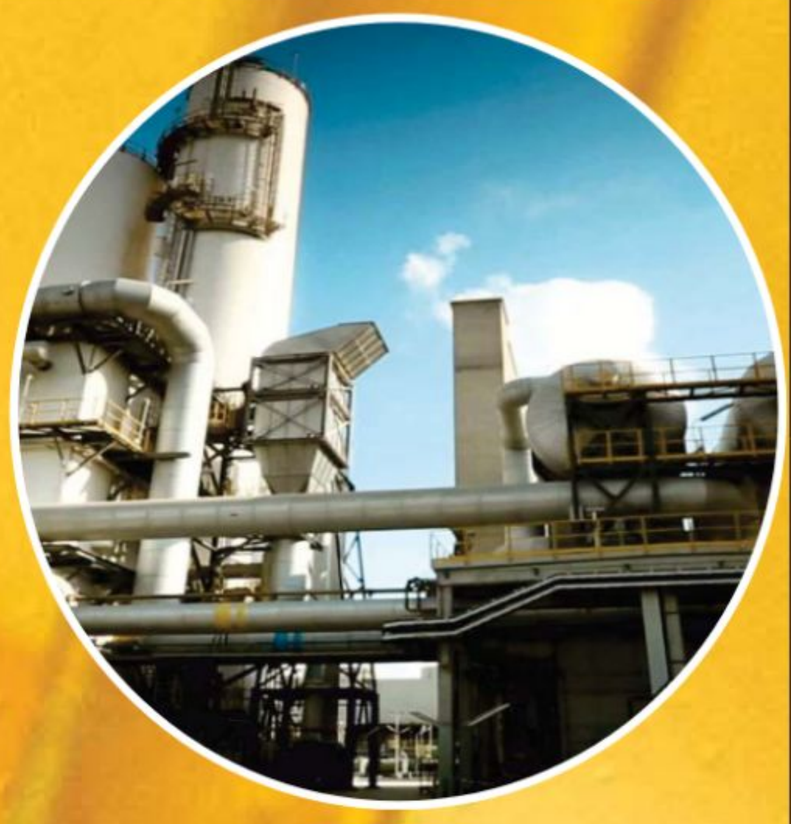
Offers of Other Products: Medium and low temperatures synthetic heat transfer products: Maxothermie-600, Maxothermie-HFF (Hot Flash Fluid) for system cleaning; , Maxothermie-FP (Food Grade).



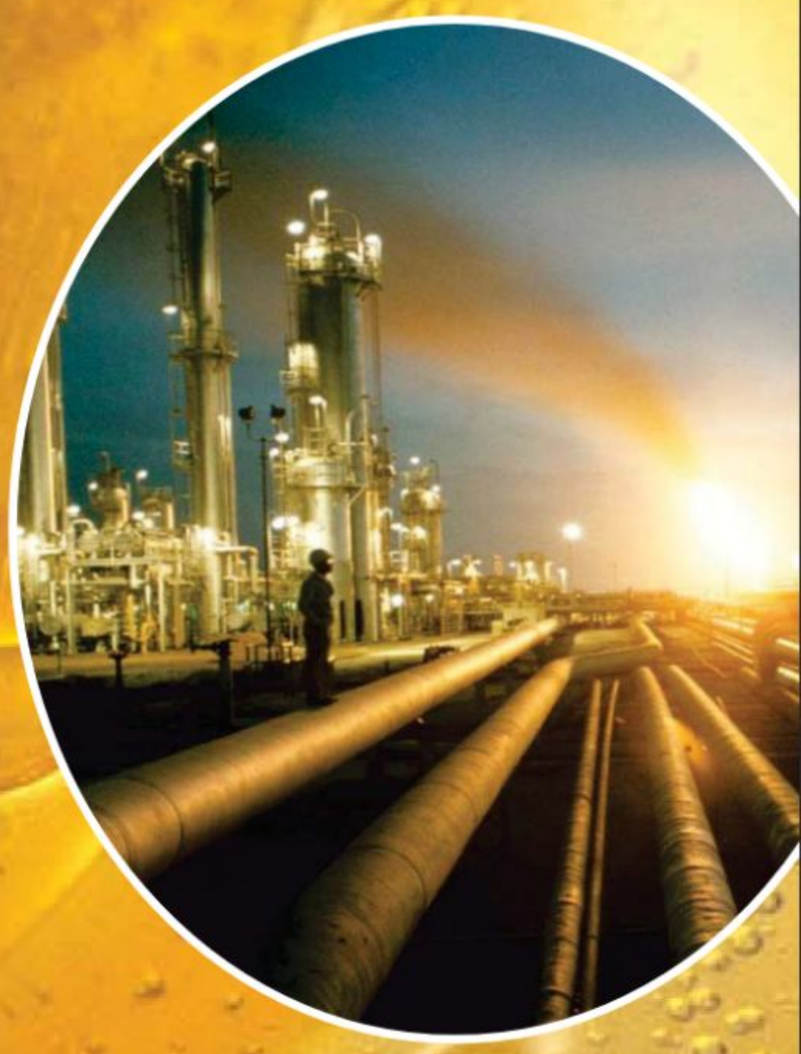
Actual fluid life is quite dependent on system design and operation. As fluid ages, the formation of volatile (low boiling) products and high-boiling compounds may result. Volatile products should be vented from the system to a non-hazardous area away from personnel and sources of ignition. The high-boiling 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 550 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.

*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. Nirmal Energy Limited 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, Nirmal Energy Limited will not be responsible for its use other than intended and in no event Nirmal Energy Limited 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.

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