Product Information

Thermic™ Heat Transfer Oil (6734) & Thermic™ Heat Transfer System Cleaner (6739)

Products Resist Oxidation for Enclosed Heat Transfer Applications

LE's Thermic™ Heat Transfer products provide efficient heat transfer and good pump circulation and are perfect for use in asphalt production equipment; die casting machinery; and plastic, paper and rubber manufacturing operations.

Thermic Heat Transfer Oil (6734) has been designed for high-temperature enclosed heat transfer equipment and is formulated with highly refined, severely hydrogenated, paraffinic white oil that resists cracking, oxidation and thickening. It was designed specifically for performance in hot oil exchange systems sustaining operating temperatures up to 316°C (600°F). Thermic Heat Transfer Oil does not rely on extra additives that can be depleted to combat oxidation; instead, it is engineered to rely on the inherent strength of its chemical bond to provide long-term oxidative stability.

Most heat transfer systems need to be flushed of carbon and sludge from exhausted heat transfer fluids. Thermic Heat Transfer System Cleaner (6739) is a one-step, nonhazardous cleaning agent for systems with fouling and other degradation issues. Add 15 percent of the system volume and run for up to two weeks at 288°C (550°F) for removing carbon and sludge.

Beneficial Qualities

Thermic Heat Transfer Oil (6734)

- Exhibits excellent oxidative stability
- Can sustain operating temperatures up to 316°C (600°F)
- Will not thicken in use
- Provides good pump circulation even at low temperatures
- Is noncorrosive, nontoxic and odorless
- Registered NSF HT1 for incidental food contact

Thermic Heat Transfer System Cleaner (6739)

- Provides maximum cleaning performance when run at recommended temperature
- Achieves 90 percent effectiveness in up to two weeks
- Is a simple drain and refill system, with no additional flush required after use

Technical Data

Thermic Heat Transfer Oil

Thermic Heat Transfer System Cleaner

	6734	6739
Maximum Bulk Fluid Operating Temperature °C (°F)	316 (600)	288 (550)
Maximum Film Temperature °C (°F)	343 (650)	-
Coefficient of Thermal Expansion %/°C (%/°F)	0.000892 (0.000495)	-
Viscosity @ 100°C, cSt, ASTM D445	2.97	5.7
Viscosity @ 40°C, cSt, ASTM D445	15.5	31
Flash Point °C (°F), (COC), ASTM D92	193 (380)	230 (446)
Autoignition Temperature °C (°F), minimum, ASTM E659	349 (660)	-
Pour Point °C (°F), ASTM D97	-29 (-20)	-33 (-27)
Copper Corrosion 3 hrs @ 100°C, ASTM D130	1b	1b
Acid Number mg KOH/g, ASTM D974	<0.1	-

Engineering Properties for Thermic Heat Transfer Oil

Temperature	Viscosity	Density		Specific Heat		Thermal Conductivity		Vapor Pressure	
°C (°F)	cSt	kg/m3	lb/ft3	J/g-K	BTU/lb-°F	W/m-K	BTU/ft-hr-°F	kPa	psia
40 (104)	15.5	839.6	52.4	2.06	0.49	0.135	0.078	-	-
100 (212)	2.97	803.3	50.1	2.27	0.54	0.130	0.075	-	0.001
150 (302)	1.38	772.9	48.2	2.44	0.58	0.126	0.073	0.196	0.028
200 (392)	0.83	742.5	46.3	2.61	0.62	0.122	0.070	1.020	0.148
250 (482)	0.56	712.1	44.5	2.78	0.66	0.118	0.068	4.864	0.705
300 (572)	0.41	681.8	42.6	2.95	0.70	0.113	0.066	17.220	2.498
316 (600)	0.37	672.4	42.0	3.00	0.72	0.112	0.065	24.517	3.556

Performance Requirements Met or Exceeded

- NSF HT1 (6734)

Typical Applications for 6734 & 6739

- Asphalt production equipment
- Die casting machinery
- Plastic, paper and rubber manufacturing operations

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