Shanghai Yancui Import and Export Corporation

Rm.1507-1508, Tower A, No.289 Zheqiao Road, Shanghai 201206, P.R.China
Tel: 86-21-38722636 Fax: 86-21-58500043 www.ycchemicals.com

PRODUCT DATA SHEET

Heat Transfer Fluid YC-HTF-7

(Diisopropyl Biphenyl, equal to Therminol 62)

Introduction:

DiisopropylBiphenyl (DIPB) is a high-purity synthetic aromatic composite featuring thermal stability, excellent fluidity, and heat conductivity for high-temperature (max.350°C) use in synthetic heat transfer oil, as well as resistance to coking and scaling,hence meeting the safety requirements for low pressure liquid-phase heating systems.

---FLOWABILITY

Pour point of -48℃,ensuring smooth start-up at low temperatures, hence suitable for most cold regions.

---CORROSION-FREE

High-purity aromatic with no foreign matters in the production process,ensuring low-sulfur, low-chlorine and corrosion-free products.

THERMAL STABILITY

Good high-temperature performance enables reliable and stable operation at temperature up to 330℃ over long periods of time.

---LOW TOXICITY

Colorless and odorless aromatic hydrocarbons, low toxic and eco-friendly.

We recommend that systems using this 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.

Packing:

Drums, IBC, Iso tank or as per user's requirement.

TYPICAL DATA

Items	Test Result
Maximum permissible service temperature /℃	350
Appearance	Clear and transparent with no suspended solids
Spontaneous ignition temperature /℃	402
Flash point (closed)/℃	167
Flash point (open)/℃	175
Sulfur content/(mass fraction)/%	Below 0.001
Chlorine content/mg/kg	2
Acid value/(in KOH)/mg/kg	0.01
Copper strip corrosion /(100℃ ,3h)/grade	1b
Water content/mg/kg	118
Water soluble acid or alkaline /none	None
Pour point/reported ℃	-48
Density/20℃/kg/m3	953.3
Ash content/(mass fraction)/%	Less than 0.002
Distillation /IBP /℃	284
/2%/℃	312
Residual carbon /(mass fraction)/%	Less than 0.01
Kinetic viscosity/0℃	135.4(0℃)
/40℃	12.17(40℃)
/100° ℃	2.503(100℃)
Deterioration rate /% 350℃,1000 hrs	9.2

*****_These data are based on samples tested in the laboratory and are not guaranteed for all samples. Contact us for complete sales specifications.. Does not constitute an express warranty._

PROPERTY DATA

Temperature		Density		Specific heat		Thermal Conductivity Coefficient		Viscosity		Vapor pressure	
℃	°F	kg/m³	lb/ft²	kJ/kg • k	Btu/lb-	W/m • k	Btu/ft • hr.°F	mm2/s	mPa • s	kPa	psia
-40	-40	997	62.2	1.77	0.423	0.1279	0.0742				
-30	-22	990	61.8	1.80	0.431	0.1271	0.0737	7521	7446		
-20	-4	982	61.3	1.83	0.437	0.1263	0.0732	1206	1185		
-10	14	975	60.9	1.86	0.444	0.1254	0.0727	290	283		
0	32	968	60.4	1.89	0.451	0.1246	0.0723	102	99.5		
10	50	962	60.1	1.92	0.458	0.1238	0.0715	51.9	49.9		
20	68	955	59.6	195	0.464	0.1230	0.0711	25.4	243		
30	86	948	59.2	1.97	0.470	0.1221	0.0706	16.5	15.6		
40	104	940	58.7	2.00	0.476	0.1213	0.0701	10.9	10.2		
50	122	933	58.2	2.02	0.482	0.1205	0.0696	7.76	7.24	0.002	0.0003
60	140	926	57.8	2,05	0.488	0.1196	0.0691	5.80	5.37	0.005	0.0007
70	158	919	57.3	2.07	0.494	0.1186	0.0686	4.55	4.18	0.010	0.0015
80	176	911	56.9	2.10	0.500	0.1177	0.0680	3.66	3.34	0.020	0.0029
90	194	904	56.4	2.12	0.506	0.1167	0.0675	3.01	2.72	0.035	0.0051
100	212	897	56.0	2.14	0.511	0,1158	0.0669	2.52	2.26	0.060	0.0086
110	230	889	55.5	2.16	0.516	0.1149	0.0664	2.14	1,90	0.096	0.0139
120	248	882	55.1	2.18	0.522	0.1139	0.0658	1.85	1.63	0,15	0.0223
130	266	874	54.6	2.21	0.527	0.1130	0.0653	1.60	1.40	0.24	0.0348
140	284	867	54.1	2.23	0.532	0.1120	0.0647	1.41	1.22	0.38	0.0551
150	302	859	53.6	2.25	0.537	0.1111	0.0642	1.24	1.07	0.57	0.0827
160	320	851	53.1	2.27	0.543	0.1100	0.0636	1.09	0.93	0.84	0.122
170	338	843	52.6	2.29	0.548	0.1090	0.0630	0.98	0.83	1.24	0.180
180	356	835	52.1	2.32	0.553	0.1079	0.0624	0.88	0.73	1.80	0.261
190	374	827	51.6	2.34	0.558	0.1069	0.0618	0.79	0.65	2.56	0.371
200	392	819	51.1	2.35	0.561	0.1058	0.0611	0.72	0.59	3.58	0.519
210	410	811	50.6	2.37	0.566	0.1047	0.0605	0.66	0.54	4.92	0.713
220	428	803	50.1	2.39	0.571	0.1037	0.0599	0.60	0.48	6.50	0.943
230	446	795	49.6	2.41	0.576	0.1026	0.0593	0.55	0.44	8.74	1.267
240	464	787	49,1	2.43	0.580	0.1016	0.0587	0.51	0.40	11.6	1.682
250	482	777	48.5	2.45	0.585	0.1003	0.0580	0.47	0.36	15.2	2.204
260	500	762	47.6	2.47	0.589	0.0990	0.0572	0.43	0.33	19.5	2.828
270	518	754	47.1	2.48	0.593	0.0977	0.0564	0.40	0.30	25.4	3.683
280	536	746	46.6	2.50	0.597	0.0963	0.0557	0.37	0.28	32.5	4.713
290	554	738	46.1	2.51	0.600	0.0950	0.0549	0.35	0.26	41.0	5.945
300	572	730	45.6	2.53	0.604	0.0937	0.0541	0.33	0.24	51.7	7.497
310	590	720	44.9	2.55	0.608	0.0923	0.0533	0.31	0.22	64.3	9.324
320	608	710	44.3	2.56	0.612	0.0907	0.0524	0.29	0.21	77.8	11.28
330	626	700	43.7	2.59	0.618	0.0891	0.0515	0.27	0.19	95.3	13.82
340	644	689	43.0	2.60	0.621	0.0873	0.0505	0.26	0.18	116	16.82
350	662	679	42.4	2.62	0.625	0.0857	0.0496	0.24	0.16	137.5	19.96