KLJ GROUP

WE VALUE YOUR TRUST

... sustaining life with material footprints

TOTAL SOLUTIONS IN PLASTICIZERS

World class plants strategically located in India & South East Asia with installed Capacity of over 300,000 tpa & expanding

One Stop Total Solutions provider for all the Plasticizer needs.

COMPLETE RANGE OF PLASTICIZERS

Phthalate | Adipate | Trimellitate | Citrate | Stearate | Benzoate | Sebacate | Maleate | Phosphate | ESBO | Chlorinated Paraffins

PLASTICIZERS (PHTHALATES)

GRADE / PROPERTIES	UNIT	TEST METHOD	✦ KANATOL 1212	✦ KANATOL 1210	KANATOL 1001	✦ KANATOL 1000 L	KANATOL 1010	● KANATOL 900	● KANATOL 800 FG	KANATOL 800
			DI-DO-DECYL PHTHALATE	DI-UN-DECYL PHTHALATE	DI-ISO-DECYL PHTHALATE	DI-DECYL PHTHALATE (LINEAR)	BIS-2 PROPYL HEPTYL PHTHALATE	DI-ISO-NONYL PHTHALATE	DI-2-ETHYL HEXYL PHTHALATE (FG)	DI-2-ETHYL HEXYL PHTHALATE
Appearance		Visual	Water White Clear Liquid							
Colour (Max.)	Hazen	ASTM-D-1045-08	40	50	20	20	20	20	15	20
Specific Gravity at 27°C	N/A	ASTM-D-1045-08	0.942 ± 0.003	0.952 ± 0.003	0.963 ± 0.003	0.959 ± 0.003	0.961 ± 0.003	0.973 ± 0.003	0.983 ± 0.003	0.983 ± 0.003
Refractive Index at 27°C	N/A	ASTM-D-1045-08	1.480 ± 0.003	1.482 ± 0.003	1.485 ± 0.003	1.486 ± 0.003	1.485 ± 0.003	1.486 ± 0.003	1.486 ± 0.003	1.486 ± 0.003
Volatile Loss at 130°C for 3 Hrs. (Max.)	% By Mass	KLJ TM-P-11-92	0.10	0.10	0.10	0.10	0.10	0.10	0.05	0.10
Moisture Content (Max.)	% By Mass	ASTM-E-203-08	0.10	0.10	0.10	0.10	0.10	0.10	0.05	0.10
Acidity as Acid (Max.)	% By Mass	ASTM-D-1045-08	0.02	0.01	0.01	0.01	0.01	0.01	0.0033	0.01
Acidity after heat treatment at 180°C for 2 Hours (Max.)	% By Mass	ISI-9591-03	0.04	0.03	0.03	0.03	0.03	0.03	0.015	0.03
Heat Stability at 180°C for 2 Hrs.	Colour	ISI-9591-03	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
Heat Stability at 150°C for 2 Hrs.	Colour	ISI-9591-03	–	–	–	–	–	–	–	–
Ester Value	mg KOH/gm	ASTM-D-1045-08	223 ± 3	236 ± 3	251 ± 3	251 ± 3	251 ± 3	267 ± 3	287 ± 3	287 ± 3
Ester Content (Min.)	% By Weight	ASTM-D-1045-08	99.5	99.5	99.5	99.5	99.5	99.5	99.9	99.5
Plasticizing Esters By GLC (Min.)	% By Area	KLJ TM-P-12-98	99.5	99.5	99.5	99.5	99.5	99.5	99.9	99.5
Viscosity at 20°C	cPs	KLJ TM-P-13-97	N. A.	118 - 124	105 - 111	44 - 50	117 - 123	76 - 82	79 - 85	79 - 85
Boiling Point at Atmospheric Pressure	°C	IS-5298-05	N. A.	N. A.	400	261 at 5 mmHg	251- 254 at 7 mmHg	250 at 7 mbar	386	231 at 7 mbar
Residual/Free Alcohol (Max.)	% By Area	KLJ TM-P-12-98	0.20	0.20	0.10	0.10	0.10	0.10	0.03	0.10
REACh Compliance	Y/N	–	Yes	Yes	Yes	Yes	Yes	Yes	No	No

GRADE / PROPERTIES	UNIT	TEST METHOD	KANATOL 1056	✦ KANATOL 7723	✦ KANATOL 7720	KANATOL 400 (M)	KANATOL 400 N	KANATOL 400 I	KANATOL 200	KANATOL 100
						DI-BUTYL PHTHALATE (M)	DI-n-BUTYL PHTHALATE	DI-ISO-BUTYL PHTHALATE	DI-ETHYL PHTHALATE	DI-METHYL PHTHALATE
Appearance		Visual	Water White Clear Liquid							
Colour (Max.)	Hazen	ASTM-D-1045-08	20	50	40	20	20	20	20	20
Specific Gravity at 27°C	N/A	ASTM-D-1045-08	0.983 ± 0.003	0.999 ± 0.003	0.958 ± 0.003	1.038 ± 0.003	1.043 ± 0.003	1.038 ± 0.003	1.117 ± 0.003	1.186 ± 0.003
Refractive Index at 27°C	N/A	ASTM-D-1045-08	1.486 ± 0.003	1.485 ± 0.003	1.478 ± 0.003	1.492 ± 0.003	1.492 ± 0.003	1.490 ± 0.003	1.500 ± 0.003	1.512 ± 0.003
Volatile Loss at 130°C for 3 Hrs. (Max.)	% By Mass	KLJ TM-P-11-92	0.15	0.20	0.20	–	–	–	–	–
Volatile Loss at 110°C for 2 Hrs. (Max.)	% By Mass	KLJ TM-P-11-92	–	–	–	0.10	0.10	0.10	0.20 (for 1 Hr)	0.50 (for 1 Hr)
Moisture Content (Max.)	% By Mass	ASTM-E-203-08	0.10	0.20	0.10	0.10	0.10	0.10	0.20	0.20
Acidity as Acid (Max.)	% By Mass	ASTM-D-1045-08	0.01	0.21 (AV)	0.03 (AV)	0.01	0.01	0.01	0.015	0.02
Acidity after heat treatment at 180°C for 2 Hours (Max.)	% By Mass	ISI-9591-03	0.03	0.31 (AV)	0.05 (AV)	0.03	0.03	0.03	0.05	0.05
Heat Stability at 180°C for 2 Hrs.	Colour	ISI-9591-03	No Change	No Change (30 Minutes)	50 Hu.	–	–	–	–	–
Heat Stability at 150°C for 2 Hrs.	Colour	ISI-9591-03	–	–	–	No Change	No Change	No Change	35 Hu.	35 Hu.
Ester Value	mg KOH/gm	ASTM-D-1045-08	287 ± 3	305 ± 3	270 ± 3	385 ± 8	404 ± 3	402 ± 3	503 ± 3	575 ± 3
Ester Content (Min.)	% By Weight	ASTM-D-1045-08	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
Plasticizing Esters By GLC (Min.)	% By Area	KLJ TM-P-12-98	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
Viscosity at 20°C	cPs	KLJ TM-P-13-97	71 - 77	67 - 73	29 - 35	20 - 26	18 - 24	32 - 38	9 - 15	13 -18
Boiling Point at Atmospheric Pressure	°C	IS-5298-05	N. A.	N. A.	N. A.	-	340	327	298	282
Residual/Free Alcohol (Max.)	% By Area	KLJ TM-P-12-98	0.10	0.10	0.10	0.05	0.05	0.05	0.02	0.02
REACh Compliance	Y/N	–	No	No	No	No	No	No	N. A.	N. A.

RoHS : All above products are complying to RoHS requirements.

REACh : A number of REACh registered/pre-registered products available.

✦ New Launch

● Food Contact Approved

APPLICATONS : Wires & Cables | Leather Cloth | Vinyl Flooring | Medical Equipment | Non-toxic Food Packaging | Footwear | Flexible PVC Films | Adhesives | Perfumery | Automobile Parts | Rubber Belts | Flexible Pipes and Tubings | Paints | Lubricants & Metal Working Fluids | Furniture | Chemical Intermediates, etc.

PLASTICIZERS

PLASTICIZERS (SPECIALITY)

GRADE / PROPERTIES	UNIT	TEST METHOD	✦ TPTM	✦ KANATOL TM 8-10	✦ KANATOL TM 8-10 (L)	✦ KANATOL 3800	✦ KANATOL HT 9	● KANATOL 3400 AC	KANATOL 3400 C	✦ KANATOL 3430 E	✦ KANATOL 3200 C
				TRI-OCTYL DECYL TRI-MELLITATE	TRI-OCTYL DECYL TRI-MELLITATE (LINEAR)	TRI-OCTYL TRI MELLITATE		ACETYL TRI-BUTYL CITRATE	TRI-BUTYL CITRATE		TRI-ETHYL CITRATE
Appearance		Visual	Water White Clear Liquid								
Colour (Max.)	Hazen	ASTM-D-1045-08	40	100	100	50	40	40	50	30	40
Specific Gravity at 27°C	N/A	ASTM-D-1045-08	0.965 ± 0.003	0.977 ± 0.003	0.997 ± 0.003	0.989 ± 0.003	0.969 ± 0.003	1.051 ± 0.003	1.042 ± 0.003	0.995 ± 0.003	1.137 ± 0.003
Refractive Index at 27°C	N/A	ASTM-D-1045-08	1.483 - 1.486	1.487 ± 0.003	1.487 ± 0.003	1.487 ± 0.003	1.488 ± 0.003	1.441 ± 0.003	1.442 ± 0.003	1.449 ± 0.003	1.445 ± 0.003
Volatile Loss at 130°C for 3 Hrs. (Max.)	% By Mass	KLJ TM-P-11-92	0.10	0.10	0.10	0.10	0.10	0.30	0.40	0.60	0.30 (at 110°C for 1 Hour)
Moisture Content (Max.)	% By Mass	ASTM-E-203-08	0.10	0.10	0.10	0.10	0.10	0.25	0.30	0.60	0.30
Acidity as Acid (Max.)	% By Mass	ASTM-D-1045-08	0.03	0.02	0.02	0.03	0.15 (AV)	0.02	0.02	0.60 (AV)	0.02
Acidity after heat treatment at 180°C for 2 Hours (Max.)	% By Mass	ISI-9591-03	–	0.05	0.02	0.05	0.05 (AV)	0.03	0.03	N. A.	0.06
Heat Stability at 180°C for 2 Hrs.	Colour	ISI-9591-03	65 Hu.	No Change	No Change	65 Hu.	No Change	–	–	–	–
Heat Stability at 150°C for 2 Hrs.	Colour	ISI-9591-03	–	–	–	–	–	No Change	No Change	No Change	45 Hu.
Ester Value	mg KOH/gm	ASTM-D-1045-08	269 ± 3	277 ± 3	277 ± 3	306 ± 3	271 ± 3	559 ± 3	468 ± 3	389 ± 3	519 ± 3
Ester Content (Min.)	% By Weight	ASTM-D-1045-08	99.5	99	99	99	99.5	99	99	99	99
Plasticizing Esters By GLC (Min.)	% By Area	KLJ TM-P-12-98	99.5	99	99	99	99.5	99	99	99	99
Viscosity at 20°C	cPs	KLJ TM-P-13-97	–	494 - 500	107 - 113	271 - 277	–	32 - 38	31 - 37	21 - 27	–
Viscosity at 25°C	cPs	KLJ TM-P-13-97	–	–	–	–	–	–	–	–	35 ± 3
Boiling Point/Flash Point at Atmospheric Pressure	°C	IS-5298-05	272 ± 2 (FP)	–	–	283°C at 13.2 mbar	–	173°C at 5 mbar	170°C at 1.33 mbar	–	127°C at 1.33 mbar
REACh Compliance	Y/N	–	Yes	No	Yes	N. A.	Yes	Yes	Yes	Yes	N. A.

GRADE / PROPERTIES	UNIT	TEST METHOD	KANATOL 80 S	KANATOL 40 S	KANATOL 8 S	✦ KANATOL DPGB 50	✦ KANATOL DGB	✦ KANATOL 9090	● ✦ KANATOL 8080 FG	✦ KANATOL B 40
			OCTYL STEARATE	N-BUTYL STEARATE	DI-OCTYL SEBACATE	DPGDB (50)	DI-ETHYLENE GLYCOL DI-BENZOATE	DI-ISO-NONYL 1,4 BENZENE DI-CARBOXYLATE	BIS (2 ETHYL HEXYL) 1.4 BENZENE DI-CARBOXYLATE	BIO PLASTICIZER
Appearance		Visual	Water White Clear Liquid							
Colour (Max.)	Hazen	ASTM-D-1045-08	60	60	40	100	100	20	20	40
Specific Gravity at 27°C	N/A	ASTM-D-1045-08	0.858 ± 0.003	0.857 ± 0.003	0.913 ± 0.003	1.146 ± 0.003	1.168 ± 0.003	0.965 ± 0.003	0.983 ± 0.003	0.925 ± 0.015
Refractive Index at 27°C	N/A	ASTM-D-1045-08	1.443 ± 0.003	1.447 ± 0.003	1.450 ± 0.003	1.520 ± 0.003	1.520 ± 0.003	1.486 ± 0.003	1.487 ± 0.003	1.453 ± 0.003
Volatile Loss at 130°C for 3 Hrs. (Max.)	% By Mass	KLJ TM-P-11-92	0.20	–	0.20	0.15	0.15	0.10	0.10	0.30
Volatile Loss at 110°C for 2 Hrs. (Max.)	% By Mass	KLJ TM-P-11-92	–	0.20	–	–	–	–	–	–
Moisture Content (Max.)	% By Mass	ASTM-E-203-08	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.15
Acidity as Acid (Max.)	% By Mass	ASTM-D-1045-08	0.50	0.02	0.02	0.10	0.10	0.01	0.01	2.00 (AV)
Acidity after heat treatment at 180°C for 2 Hours (Max.)	% By Mass	ISI-9591-03	N. A.	N. A.	0.03	0.30	0.30	0.03	0.03	4.00 (AV)
Heat Stability at 180°C for 2 Hrs.	Colour	ISI-9591-03	–	–	No Change	125 Hu.	No Change	No Change	No Change	100 Hu.
Heat Stability at 150°C for 2 Hrs.	Colour	ISI-9591-03	No Change	No Change	–	–	–	–	–	–
Ester Value	mg KOH/gm	ASTM-D-1045-08	143 ± 3	172 ± 5	263 ± 3	342 ± 3	351 ± 3	268 ± 3	287 ± 3	187 ± 3
Ester Content (Min.)	% By Weight	ASTM-D-1045-08	99.5	99	99.5	99.5	99	99.5	99.5	99.9
Plasticizing Esters By GLC (Min.)	% By Area	KLJ TM-P-12-98	99.5	99	99.5	99.5	99	99.5	99.5	99.9
Viscosity at 20°C	cPs	KLJ TM-P-13-97	–	–	58 - 64	–	85 - 91	80 - 86	60 - 66	15 ± 3
Viscosity at 25°C	cPs	KLJ TM-P-13-97	16 - 22	8 - 14	–	100 ± 3	–	–	–	–
Boiling Point/Flash Point at Atmospheric Pressure	°C	IS-5298-05	–	343°C	248°C at 5 mmHg	231°C at 1.5 mbar	240°C at 5 mmHg	–	400°C	N. A.
REACh Compliance	Y/N	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N. A.

RoHS : All above products are complying to RoHS requirements.

REACh : A number of REACh registered/pre-registered products available.

APPLICATONS : Wires & Cables | Leather Cloth | Vinyl Flooring | Medical Equipment | Non-toxic Food Packaging | Footwear | Flexible PVC Films | Adhesives | Perfumery | Automobile Parts | Rubber Belts | Flexible Pipes and Tubings | Paints | Lubricants & Metal Working Fluids | Furniture | Chemical Intermediates, etc.

✦ New Launch
● Food Contact Approved

PLASTICIZERS (MALEATES)

ADIPATES

PROPERTIES / GRADE	UNIT	TEST METHOD	KANATOL 9M	KANATOL 8M	KANATOL 4M	KANATOL 2M	KANATOL 1M	KANATOL 10A	● KANATOL 9A	● KANATOL 8A	KANATOL 1A
			DI-ISO-NONYL MALEATE	DI-OCTYL MALEATE	DI-n-BUTYL MALEATE	DI-ETHYL MALEATE	DI-METHYL MALEATE	DI-ISO-DECYL ADIPATE	DI-ISO-NONYL ADIPATE	DI-OCTYL ADIPATE	DI-METHYL ADIPATE
Appearance		Visual	Water White Clear Liquid					Water White Clear Liquid			
Colour (Max.)	Hazen	ASTM-D-1045-08	40	40	40	40	40	40	40	30	40
Specific Gravity at 27°C	N/A	ASTM-D-1045-08	0.931 ± 0.003	0.943 ± 0.003	0.990 ± 0.003	1.060 ± 0.003	1.143 ± 0.003	0.915 ± 0.003	0.922 ± 0.003	0.923 ± 0.003	1.062 ± 0.003
Refractive Index at 27°C	N/A	ASTM-D-1045-08	1.457 ± 0.003	1.446 ± 0.003	1.446 ± 0.003	1.438 ± 0.003	1.442 ± 0.003	1.449 ± 0.003	1.452 ± 0.003	1.447 ± 0.003	1.427 ± 0.003
Volatile Loss at 130°C for 3 Hrs. (Max.)	% By Mass	KLJ TM-P-11-92	0.20	0.20	–	–	–	0.10	0.10	0.10	–
Volatile Loss at 110°C for 1 Hr. (Max.)	% By Mass	KLJ TM-P-11-92	–	–	0.5 (for 2 Hours)	1.0	1.0	–	–	–	0.3
Moisture Content (Max.)	% By Mass	ASTM-E-203-08	0.10	0.10	0.15	0.20	0.40	0.10	0.10	0.10	0.40
Acidity as Acid (Max.)	% By Mass	ASTM-D-1045-08	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.05
Acidity after heat treatment at 180°C for 2 Hours (Max.)	% By Mass	ISI-9591-03	0.04	0.04	0.05	N.A.	N.A.	0.05	0.05	0.04	N.A.
Heat Stability at 180°C for 2 Hrs.	Colour	ISI-9591-03	50 Hu.	50 Hu.	–	–	–	50 Hu.	50 Hu.	40 Hu.	–
Heat Stability at 150°C for 2 Hrs.	Colour	ISI-9591-03	–	–	50 Hu.	50 Hu.	50 Hu.	–	–	–	50 Hu.
Ester Value	mg KOH/gm	ASTM-D-1045-08	304 ± 3	330 ± 3	493 ± 3	652 ± 3	779 ± 3	263 ± 3	281 ± 3	303 ± 3	640 ± 3
Ester Content (Min.)	% By Weight	ASTM-D-1045-08	99	99	99	99	99	99	99.5	99.5	99.5
Plasticizing Esters By GLC (Min.)	% By Area	KLJ TM-P-12-98	99	99	99	99	99	99	99.5	99.5	99.5
Viscosity at 20°C	cPs	KLJ TM-P-13-97	16 - 22	16 - 22	6 - 12	–	–	24 - 30	19 - 25	12-18 (at 25°C)	–
Boiling Point at Atmospheric Pressure	°C	IS-5298-05	–	–	280.6	225	205	239 at 5 mmHg	233 at 5 mmHg	335	–
REACh Compliance	Y/N	–	–	–	–	–	–	Yes	Yes	Yes	N.A.

RoHS : All above products are complying to RoHS requirements.

REACh : A number of REACh registered/pre-registered products available.

APPLICATONS : Wires & Cables | Leather Cloth | Vinyl Flooring | Medical Equipment | Non-toxic Food Packaging | Footwear | Flexible PVC Films | Adhesives | Perfumery | Automobile Parts | Rubber Belts | Flexible Pipes and Tubings | Paints | Lubricants & Metal Working Fluids | Furniture | Chemical Intermediates, etc.

✦ New Launch
● Food Contact Approved

PHOSPHATE ESTERS

PROPERTIES / GRADE	UNIT	TEST METHOD	KANATOL FLAMEGUARD C 100	KANATOL FLAMEGUARD C 70	KANATOL FLAMEGUARD C 40	KANATOL FLAMEGUARD P 100
			TRI CRESYL PHOSPHATE	TRI CRESYL PHOSPHATE-70	TRI CRESYL PHOSPHATE-40	TRI PHENYL PHOSPHATE
Appearance		Visual	Clear Liquid			White Crystalline Flakes
Colour (Max.)	Hazen	ASTM-D-1045-86	150	150	150	25
Specific Gravity at 25°C	N/A	ASTM-D-1045	1.17 ± 0.001	1.19 ± 0.001	1.21 ± 0.001	1.208 (at 60°C)
Refractive Index at 27°C	N/A	ASTM-1807	1.558 ± 0.008	1.558 ± 0.008	1.558 ± 0.008	–
Moisture Content (Max.)	% By Weight	Karl Fischer ASTM-E-203-01	0.10	0.10	0.10	0.10
Acidity as H_3PO_4 (Max.)	% By Weight	ASTM-D-1613	0.01	0.01	0.01	0.01
Free Alcohol (Max.)	% By Area	KLJ/QCD/WIN/46	0.05	0.05	0.05	0.05
Ester Content (Min.)	% By Weight	GLC KLJ/QCD/WIN/50	99.00	99.00	99.00	99.00
Cresolic Ester Content (Min.)	% By Area	GLC KLJ/QCD/WIN/50	99.00	70.00	40.00	–
O-Isomer Content (Max.)	% By Area	GLC KLJ/QCD/WIN/50	0.50	0.50	0.50	–
Viscosity at 25°C	cPs	Brookfield Viscometer ASTM-D-445	55 - 70	50 - 60	40 - 55	17.0 (at 60°C)
Melting Point	°C	IS-5762 : 1970	–	–	–	47.5 - 49.5
Water Soluble Impurities (Max.)	PPM	BS-1998 : 1970	10	10	10	10
Phosphorous Content	%	KLJ/QCD/WIN/49	8.40 - 8.50	8.70 - 8.80	8.90 -9.10	9.40 - 9.50

RoHS : All above products are complying to RoHS requirements.

APPLICATONS : Flame Retardant plasticizers for PVC | Synthetic Rubber | Cellulose Polymers | Photographic Film | Anti-foaming Agent for Paper Coating Compounds | Water Based Adhesives Inks and Detergents | Stabilizing Agent for Urethane Foam | Anti Wear Agent in Lubricating Oil | Additives for improving Binding Properties | Corrosion Resistant in Paints | Gasoline Additive as Lead Scavenger | Hydraulic Fluid - improves Heat Stability | Extraction Aid for Heavy Metals | Stabilizer for Aromatic Polyester | Solvent for Paints | Low Temperature Plasticizer, etc..

EPOXIDIZED SOYBEAN OIL

PROPERTIES / GRADE	UNIT	TEST METHOD	✦ KANAMOLL 620	✦ KANAMOLL 650	✦● KANAMOLL 651
			ESBO 6.2	ESBO 6.5	ESBO 6.5 FG
Appearance		Visual	Pale Yellow Clear Liquid		
Colour (Max.)	Hazen	ASTM D-1045-08	150	150	150
Specific Gravity at 27°C	N/A	ASTM D-1045-08	0.996 ± 0.003	0.996 ± 0.003	0.996 ± 0.003
Moisture Content (Max.)	% By Mass	ASTM E-203-08	0.10	0.10	0.10
Acid Value (Max.)	% By Mass	ASTM D-1045-08	1.0 ± 0.2	0.8 ± 0.2	0.8 ± 0.2
Ester Value	mg KOH/gm	ASTM D-1045-08	1.0 ± 0.2	0.8 ± 0.2	0.8 ± 0.2
Oxirane Value (Min.)	–	HBR Method	6.2 ± 0.1	6.5 ± 0.1	6.5 ± 0.1
Iodine Value (Max.)	–	Wij's Method	5	3	3
REACh Compliance	Y/N		Yes	Yes	Yes

✦ New Launch
● Food Contact Approved

The above properties are indicative and represent the values as tested in our laboratories. There is no guarantee / warranty whatsoever. Suitability of the product for particular application may be verified before use.

World class plants strategically located in India & South East Asia with installed Capacity of over 300,000 tpa & expanding

One Stop Total Solutions provider for all the Plasticizer needs.

COMPLETE RANGE OF PLASTICIZERS

Phthalate | Adipate | Trimellitate | Citrate | Stearate | Benzoate | Sebacate | Maleate | Phosphate | ESBO | Chlorinated Paraffins

KANACHLOR CHLORINATED PARAFFIN

GRADE / SPECIFICATION	UNIT	TEST METHOD	40 D/AD/ AI/AD1	40 C	42 WH	42 WAX	45 D/AD/ AI/AD1	45 C	45 KD-5	45 F	✦ 45 KL-10	✦ 50 WH	52 D/AD/ AI/AD1	52 C	52 KD-5
Colour (Max.)	Hazen	ASTM D-1045-86	60	60	300	60	60	60	150	60	60	300	60	60	150
Specific Gravity at 27°C	N/A	ASTM D-1045	1.11 ± 0.02	1.10 ± 0.02	1.18 ± 0.02	1.20 ± 0.02	1.20 ± 0.02	1.20 ± 0.02	1.20 ± 0.02	1.20 ± 0.02	1.21 ± 0.02	1.28 ± 0.02	1.28 ± 0.02	1.30 ± 0.02	1.28 ± 0.02
Refractive Index at 27°C	N/A	ASTM D-1807	1.483 ± 0.002	1.483 ± 0.002	1.503 ± 0.002	1.506 ± 0.002	1.498 ± 0.002	1.496 ± 0.002	1.498 ± 0.002	1.491 ± 0.002	1.505 ± 0.002	1.520 ± 0.002	1.509 ± 0.002	1.510 ± 0.002	1.510 ± 0.002
Volatile Loss at 180°C for 4 Hours (Max.)	% By Weight	KLJ/QCD/ WIN/26	3.50	9.00	2.50	0.80	3.00	7.00	6.50	9.00	1.50	0.80	1.50	3.50	4.00
Chlorine Content	% By Weight	ISI-1448-77	40 ± 2	40 ± 2	42 ± 2	42 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	50 ± 2	52 ± 2	52 ± 2	52 ± 2
Free Mineral Acidity (Max.)	% By Weight	KLJ/QCD/ WIN/24	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Free Chlorine (Max.)	% By Weight	KLJ/QCD/ WIN/25	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Viscosity at 27°C	Poise	Brookfield ASTM D-445	0.5 - 1.0	0.3 - 1.0	15 - 50	50 - 100	2 - 5	0.5 - 1.5	2 - 5	0.3 - 0.8	15 - 30	500 - 1200	12 - 35	5 - 12	10 - 25
Heat Stability at 180°C for 20 Minutes (Max.)	Colour	KLJ/QCD/ WIN/28	Yellow	Yellow	Brown	Yellow	Yellow	Yellow	Brown	Dark Yellow	Yellow	Brown	Yellow	Yellow	Brown
Thermal Stability at 175°C for 4 Hours (Max.)	% By Weight	KLJ/QCD/ WIN/27	0.10	0.10	0.40	0.10	0.10	0.10	0.20	0.20	0.10	0.40	0.10	0.10	0.20
pH Value (Min.)	–	KLJ/QCD/ WIN/29	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0

KANACHLOR CHLORINATED PARAFFIN

GRADE / SPECIFICATION	UNIT	TEST METHOD	52 F	58 D/AD AI/AD1	58 C	58 KD-5	58 F	62 D/AD AI/AD1	62 C	62 KD-5	62 F	68 F	68 D/AD AI/AD1	68 C	✦ 72 F
Colour (Max.)	Hazen	ASTM D-1045-86	60	60	60	150	60	60	60	150	60	60	150	100	150
Specific Gravity at 27°C	N/A	ASTM D-1045	1.30 ± 0.02	1.36 ± 0.02	1.35 ± 0.02	1.35 ± 0.02	1.35 ± 0.03	1.40 ± 0.03	1.40 ± 0.03	1.40 ± 0.03	1.40 ± 0.02	1.51 ± 0.04	1.50 ± 0.04 (at 50°C)	1.54 ± 0.04 (at 50°C)	1.59 ± 0.04 (at 50°C)
Refractive Index at 27°C	N/A	ASTM D-1807	1.506 ± 0.002	1.518 ± 0.002	1.515 ± 0.002	1.516 ± 0.002	1.513 ± 0.003	1.526 ± 0.003	1.524 ± 0.003	1.525 ± 0.003	1.520 ± 0.003	1.531 ± 0.004	–	–	–
Volatile Loss at 180°C for 4 Hours (Max.)	% By Weight	KLJ/QCD/ WIN/26	6.00	1.20	2.00	3.50	5.00	0.90	1.50	3.00	3.50	2.00	0.50	1.00	1.30
Chlorine Content	% By Weight	ISI-1448-77	52 ± 2	58 ± 2	58 ± 2	58 ± 2	58 ± 2	62 ± 2	62 ± 2	62 ± 2	62 ± 2	68 ± 2	68 ± 3	68 ± 2	72 ± 2
Free Mineral Acidity (Max.)	% By Weight	KLJ/QCD/ WIN/24	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Free Chlorine (Max.)	% By Weight	KLJ/QCD/ WIN/25	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Viscosity at 27°C	Poise	Brookfield ASTM D-445	1 - 3	125-400	20 - 35	125-250	4 - 7	400 - 1200	125-250	300-700	15 - 30	180-700	500-2000 (at 50°C)	80 - 300 (at 50°C)	100-500 (at 50°C)
Heat Stability at 180°C for 20 Minutes (Max.)	Colour	KLJ/QCD/ WIN/28	DarkYellow	Yellow	Yellow	Brown	DarkYellow	Yellow	Yellow	Brown	DarkYellow	DarkYellow	Light Brown	DarkYellow	Brown
Thermal Stability at 175°C for 4 Hours (Max.)	% By Weight	KLJ/QCD/ WIN/27	0.20	0.10	0.10	0.20	0.20	0.10	0.10	0.20	0.20	0.20	0.10	0.10	0.20
pH Value (Min.)	–	KLJ/QCD/ WIN/29	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0

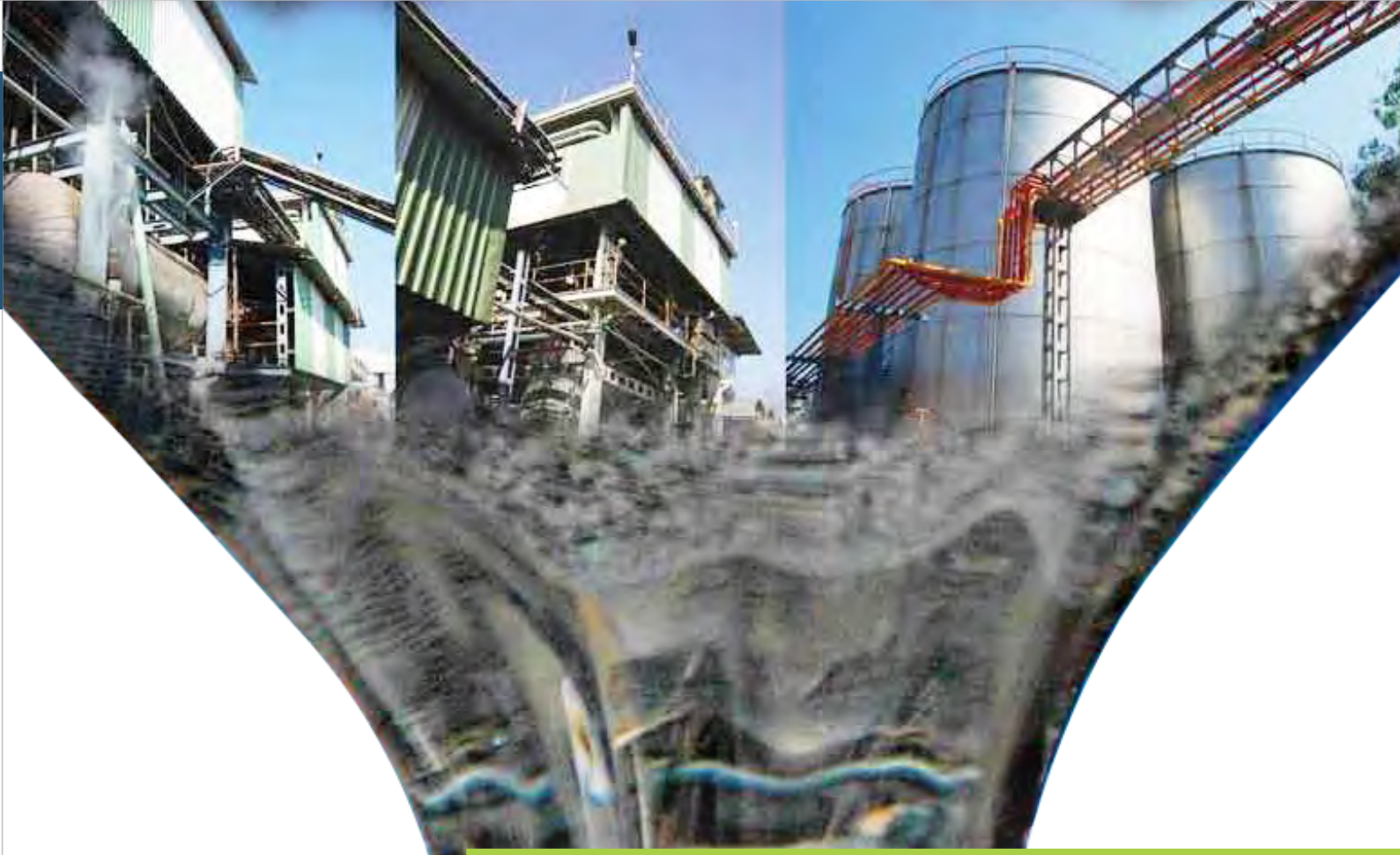
RoHS : All above products are complying to RoHS requirements.

✦ New Launch

NOTE : Specific grades of CPW can be made on request.

The above properties are indicative and represent the values as tested in our laboratories. There is no guarantee / warranty whatsoever. Suitability of the product for particular application may be verified before use.

Packing Options : All the above liquid products are available in Plastic Drums (200 & 225 lirs.), Steel Drums, Intermediate Bulk Containers (IBC's / Totes), Flexi -Tanks & ISO Tanks.



KLJ GROUP

Corporate Office
KLJ House, 63 Rama Marg, Najafgarh Road, New Delhi - 110 015, India.
Tel: +91 11 25459706 - 08 | Fax: +91 11 25459709 | delhi@kljindia.com

Branch Offices
Mumbai : +91-22-61830000 | mumbai@kljindia.com
Chennai : +91-44-42383622 | chennai@kljindia.com
Kolkata : +91-33-22823851 | kolkata@kljindia.com

www.kljindia.com