

# MALEATE PLASTICIZERS

# ADIPATE PLASTICISERS

| PRODUCT SPECIFICATION                                   | 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  |             | PHYSICAL       | WATER WHITE CLEAR LIQUID |                  |                           |                           |                           | WATER WHITE CLEAR LIQUID |                      |                  |                           |
| COLOUR (Max.)   | HAZEN       | ASTM-D-1045-86 | 40                       | 40               | 40                        | 40                        | 40                        | 40                       | 40                   | 30               | 40                        |
| SPECIFIC GRAVITY at 27°C                                |             | ASTM-D-1045-86 | 0.9317 ± 0.003           | 0.943 ± 0.003    | 0.990 ± 0.005             | 1.060 ± 0.003             | 1.143 ± 0.003             | 0.910 - 0.925            | 0.905 - 0.925        | 0.924 ± 0.002    | 1.060 ± 0.003             |
| REFRACTIVE INDEX at 27°C                                |             | ASTM-D-1045-86 | 1.4577 ± 0.004           | 1.450 ± 0.006    | 1.450 ± 0.006             | 1.438 ± 0.005             | 1.442 ± 0.004             | 1.445 - 1.460            | 1.440 - 1.460        | 1.448 ± 0.002    | 1.427 ± 0.005             |
| VOLATILE LOSS at 130°C for 3 Hrs. (Max.)                | % By weight | KLJ TM-P-11-92 | 0.2                      | 0.2              | 0.5 (110°C for 2 Hrs.)    | 1.0 (110°C for 1 Hour)    | 1.0 (110°C for 1 Hour)    | 0.10                     | 0.10                 | 0.10             | 0.3 (110°C for 1 Hour)    |
| MOISTURE CONTENT (Max.)                                 | % By weight | ASTM-E-203     | 0.1                      | 0.1              | 0.15                      | 0.2                       | 0.4                       | 0.1                      | 0.1                  | 0.1              | 0.4                       |
| ACIDITY AS ACID (Max.)                                  | % By weight | ASTM-D-1045-86 | 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 Hrs. (Max.) | % By weight | ISI-9591-96    | 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.                      |             | ISI-9591-96    | 50 Hu.                   | 50 Hu.           | 50 Hu. (150°C for 2 Hrs.) | 50 Hu. (150°C for 2 Hrs.) | 50 Hu. (150°C for 2 Hrs.) | 50                       | 50                   | 40               | 50 Hu. (150°C for 2 Hrs.) |
| ESTER VALUE   | mg KOH/gm   | ASTM-D-1045-86 | 304 ± 3                  | 330 ± 3          | 492.5 ± 2.5               | 652 ± 3                   | 779 ± 3                   | 260 - 265                | 278 - 284            | 304 ± 2          | 640 ± 5                   |
| ESTER CONTENT (Min.)                                    | % By weight | ASTM-D-1045-86 | 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 | 19.5 ± 1.5               | 19.5 ± 1.5       | 8 ± 2                     | -                         | -                         | 25 - 27                  | 20 - 25              | 14 ± 2 (at 25°C) | -                         |
| BOILING POINT at ATMOSPHERIC PRESSURE                   | °C          | IS : 5298-73   | -                        | -                | 280.6                     | 225                       | 205                       | 239 at 5mmHG             | 233 at 5mmHG         | 335              | -                         |
| REACH COMPLIANCE  | Y/N         |                | -                        | -                | -                         | -                         | -                         | YES                      | YES                  | YES              | YES                       |