

# TRUST BUILT ON PERFORMANCE

*...sustaining life with natural footprints*



**KLJ GROUP**  
SINCE 1967



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PLASTICIZERS

| Trade Name                                               | Unit        | Test Method    | KANATOL 200                   | KANATOL 3200C                 | KANATOL 8A       | KANATOL 800 (S)                | KANATOL 8080 (S)                    | KANATOL 2A                  |
|----------------------------------------------------------|-------------|----------------|-------------------------------|-------------------------------|------------------|--------------------------------|-------------------------------------|-----------------------------|
| Properties                                               |             |                | Di Ethyl Phthalate            | Tri Ethyl Citrate             | Di Octyl Adipate | Di 2 Ethyl Hexyl Phthalate (S) | Bis 2 Ethyl Hexyl Terephthalate (S) | Di Ethyl Adipate            |
| Appearance                                               | NA          | Visual         | Water White Clear Liquid      |                               |                  |                                |                                     |                             |
| Colour (Max.)                                            | Hazen       | ASTM D 1045-08 | 20                            | 40                            | 30               | 15                             | 20                                  | 40                          |
| Specific Gravity at 27°C                                 | NA          | ASTM D 1045-08 | 1.117±0.003                   | 1.137±0.003                   | 0.923±.003       | 0.983±0.003                    | 0.983±0.003                         | 1.005±0.003                 |
| Refractive Index at 27°C                                 | NA          | ASTM D 1045-08 | 1.500±0.003                   | 1.445±0.003                   | 1.487±0.003      | 1.486±0.003                    | 1.487±0.003                         | 1.427±0.003                 |
| Volatile Loss at 130°C for 3 Hours (Max.)                | % by mass   | KLJ TM         | 0.2<br>(at 110°C for 1 Hr.)   | 0.30<br>(at 110°C for 1 Hr.)  | 0.10             | 0.05                           | 0.10                                | 0.3<br>(at 110°C for 1 Hr.) |
| Moisture Content (Max.)                                  | % by mass   | ASTM E 203-08  | 0.20                          | 0.30                          | 0.10             | 0.05                           | 0.10                                | 0.25                        |
| Acidity as Acid (Max.)                                   | % by mass   | ASTM D 1045-08 | 0.02                          | 0.02                          | 0.02             | 0.00                           | 0.01                                | 1.00 (AV)                   |
| Heat Stability at 180°C for 2 Hours                      | Hazen       | IS 9591:2013   | 35<br>(at 150°C for 2 Hrs.)   | 55<br>(at 150°C for 2 Hrs.)   | 40               | No Change                      | No Change                           | -                           |
| Acidity After Heat Treatment at 180°C for 2 Hours (Max.) | % by mass   | IS 9591:2013   | 0.05<br>(at 150°C for 2 Hrs.) | 0.03<br>(at 150°C for 2 Hrs.) | 0.04             | 0.02                           | 0.03                                | -                           |
| Ester Value                                              | mg KOH/gm   | ASTM D 1045-08 | 503±3                         | 591±3                         | 303±3            | 287±3                          | 287±3                               | 555±3                       |
| Ester Content (Min.)                                     | % by weight | ASTM D 1045-08 | 99.5                          | 99.0                          | 99.5             | 99.9                           | 99.5                                | 99.0                        |
| Plasticizing Ester By GLC (Min.)                         | % by area   | KLJ TM         | 99.5                          | 99.0                          | 99.5             | 99.9                           | 99.5                                | 99.0                        |
| Residual Alcohol (Max.)                                  | % by area   | KLJ TM         | 0.02                          | 0.05                          | 0.10             | 0.03                           | 0.10                                | 0.02                        |
| Viscosity at 20°C                                        | cPs         | KLJ TM         | 9-15                          | -                             | 12-18 (at 25°C)  | 79-85                          | 60-66                               | -                           |
| Boiling Point at Atmospheric Pressure                    | °C          | IS 5298:2005   | 298                           | -                             | 335              | 386                            | 400                                 | -                           |
| Boiling Point at Reduced Pressure                        | °C          | IS 5298:2005   | -                             | -                             | -                | 231 at 7 mmHg                  | -                                   | -                           |
| REACH Compliance                                         | Y/N         | -              | YES                           | YES                           | YES              | NO                             | YES                                 | YES                         |

A P P L I C A T I O N S

|                           |                              |                              |
|---------------------------|------------------------------|------------------------------|
| Perfumery                 | Incense Sticks               | Colognes                     |
| Hair Sprays               | Wave Sets                    | Nail Polish & Enamel Remover |
| Deodorants                | Cellulose Compounds & Paints | Food Additives               |
| Cosmetics                 | Pharmaceuticals              | Alcohol Denaturant           |
| Insecticides & Repellents | Fragrance                    | Food Contact                 |
| Essential Oils            | Skin Care                    | Plastisols                   |
| Dry Blending              | Bath Oils/Soaps              | Fragrance Powders            |
| Varnishes & Paints        | Eye Shadow                   |                              |



BENZYL

| Trade Name                          | Unit      | Test Method    | KANABENZ BOH        | KANABENZ BCHO       | KANABENZ BCL           | KANABENZ BBZ                     | KANABENZ BACE                        |
|-------------------------------------|-----------|----------------|---------------------|---------------------|------------------------|----------------------------------|--------------------------------------|
| Properties                          |           |                | Benzyl Alcohol (FR) | Benzaldehyde (Pure) | Benzyl Chloride        | Benzyl Benzoate                  | Benzyl Acetate                       |
| Appearance                          | -         | Visual         | Clear Liquid        | Clear Liquid        | Colorless Clear Liquid | Clear Liquid                     | Colorless Clear Liquid               |
| Colour (Max.)                       | APHA      | Tintometer     | 10                  | 30                  | 20                     | -                                | 20                                   |
| Odor                                | -         | Smell          | Faint Floral        | Bitter Almond       | Sharp Pungent          | Faint Sweet Balsamic Oily Herbal | Sweet, Floral, Fruity, Jasmine Fresh |
| Purity by GLC (Min.)                | % by area | KLJ TM         | 99.7                | 99.5                | 99.5                   | 99.5                             | 99.5                                 |
| Specific Gravity at 25°C            | -         | ASTM D 1045-86 | 1.044±0.002         | 1.043±0.002         | 1.094±0.002            | 1.118±0.002                      | 1.053±0.002                          |
| Refractive Index at 20°C            | -         | ASTM D 1045-86 | 1.539±0.002         | -                   | -                      | 1.565±0.005                      | 1.502±0.003                          |
| Benzaldehyde Content (Max.)         | %         | KLJ TM         | 0.05                | -                   | -                      | 0.05                             | 0.10                                 |
| Benzyl Alcohol Content (Max.)       | %         | KLJ TM         | -                   | -                   | -                      | 0.10                             | 0.10                                 |
| Chloride Content - FFC Grade (Max.) | ppm       | KLJ TM         | -                   | 50                  | -                      | -                                | -                                    |
| Di Benzyl Ether Content (Max.)      | %         | KLJ TM         | 0.10                | -                   | -                      | -                                | -                                    |
| Moisture Content (Max.)             | %         | Karl Fischer   | 0.10                | -                   | -                      | -                                | 0.10                                 |
| Acid Value (Max.)                   | mgKOH/g   | ASTM D 1045-86 | 0.10                | -                   | -                      | 1.00                             | 1.00                                 |
| Low Boiling Imp. by GLC (Max.)      | % by area | KLJ TM         | -                   | 0.10                | 0.20                   | -                                | -                                    |
| High Boiling Imp. by GLC (Max.)     | % by area | KLJ TM         | -                   | 0.40                | 0.30                   | -                                | -                                    |
| Acidity as Benzoic Acid (Max.)      | %         | KLJ TM         | -                   | 0.50                | -                      | -                                | -                                    |
| Freezing Point (Min.)               | °C        | KLJ TM         | -                   | -                   | -                      | 18                               | -                                    |

A P P L I C A T I O N S

|                      |                   |                           |
|----------------------|-------------------|---------------------------|
| Fine Fragrance       | Cinnamaldehyde    | Benzyl Compounds          |
| Perfumery            | Incense Sticks    | Shampoo                   |
| Hexyl Cinnamaldehyde | Cosmetics         | Insect Repellent          |
| Decorative Cosmetics | Bath Oils / Soaps | Alpha Amyl Cinnamaldehyde |
| Preservatives        | Rose Crystals     | Cleaners & Detergents     |