

## Aliphatic fluids



# Ketrul

Typical values

| PROPERTIES                                       | UNITS                    | METHODS         | Products with aromatics |            | Dearomatised products |             |             |             |            |              |
|--|--------------------------|-----------------|-------------------------|------------|-----------------------|-------------|-------------|-------------|------------|--------------|
|  |                          |                 | KETRUL HT               | KETRUL 212 | KETRUL D 70           | KETRUL D 75 | KETRUL D 80 | KETRUL D 85 | KETRUL 220 | KETRUL D 100 |
| DENSITY AT 15°C                                  | kg/m <sup>3</sup>        | EN ISO 12185    | 800                     | 814        | 802                   | 809         | 817         | 816         | 805        | 810          |
| SAYBOLT COLOUR                                   | -                        | ASTM D 156      | +29                     | +30        | +30                   | +30         | +30         | +30         | +30        | +30          |
| BOILING RANGE : - INITIAL POINT<br>- FINAL POINT | °C (°F)                  | ASTM D 86       | 188 (370)               | 220 (428)  | 187 (369)             | 199 (390)   | 201 (394)   | 213 (415)   | 221 (430)  | 233 (451)    |
|  |                          |                 | 249 (480)               | 246 (475)  | 245 (473)             | 253 (487)   | 239 (462)   | 241 (466)   | 236 (457)  | 264 (507)    |
| FLASH POINT PM                                   | °C (°F)                  | ASTM D 93       | 68 (154)                | 92 (198)   | 68 (154)              | 77 (171)    | 76 (169)    | 85 (185)    | 92 (198)   | 103 (217)    |
| EVAPORATION RATE                                 | Ether=1                  | DIN 53170       | 550                     | 1000       | 550                   | 600         | 800         | 1000        | 900        | >1000        |
| AROMATIC CONTENT                                 | ppm                      | UV TOTAL IL 013 |                         |            | 50                    | 850         | 5           | 3           | 100        | 10           |
|  | % volume                 | HPLC IP 391     | 16                      | 17         |                       |             |             |             |            |              |
| BENZENE CONTENT                                  | ppm                      | ASTM D4367      | <1                      | <1         | <1                    | <1          | <1          | <1          | <1         | <1           |
| SULPHUR CONTENT                                  | ppm                      | ASTM D5453      | <5                      | <10        | <1                    | <1          | <1          | <1          | <1         | <1           |
| ANILINE POINT                                    | °C (°F)                  | ASTM D 611      | 64 (147)                | 67 (153)   | 70 (158)              | 71 (160)    | 70 (158)    | 72 (162)    | 76 (169)   | 80 (176)     |
| VAPOUR PRESSURE AT 20°C                          | kPa                      | calculated      | 0,035                   | 0,011      | 0,031                 | 0,016       | 0,016       | 0,012       | 0,011      | 0,003        |
| VISCOSITY : - AT 20°C<br>- AT 40°C               | mm <sup>2</sup> /s (cSt) | ASTM D 445      | 2,0                     | 2,5        | 2,1                   | 2,4         | 2,4         | 2,7         | 2,7        | 3,4          |
|  |                          |                 |                         | 1,8        |                       |             | 1,7         | 1,9         | 1,9        | 2,3          |
| C.A.S NUMBER                                     |                          |                 | 64742-81-0              | 64742-81-0 | 64742-47-8            | 64742-47-8  | 64742-47-8  | 64742-47-8  | 64742-47-8 | 64742-47-8   |
| E.I.N.E.C.S / EEC NUMBER                         |                          |                 | 265-184-9               | 265-184-9  | 265-149-8             | 265-149-8   | 265-149-8   | 265-149-8   | 265-149-8  | 265-149-8    |

Data provided in this table is issued in good faith to the best of our knowledge, but no warranty, expressed or implied, is given.

|                                      | Density at 15°C  | Colour saybolt | Boiling range : initial point | Boiling range : dry point | Flash point | Evaporation rate | Aromatic content |        | Aniline point | Vapor pressure at 20°C | Viscosity at 20°C | Pour point  |
|--------------------------------------|--|----------------|-------------------------------|---------------------------|-------------|------------------|------------------|--------|---------------|------------------------|-------------------|-------------|
| UNITS                                | kg/m³  | -              | °C (°F)                       | °C (°F)                   | °C (°F)     | Ether=1          | ppm              | % vol  | °C (°F)       | kPa                    | mm²/s (cSt)       | °C (°F)     |
| METHODS                              | ASTM D 4052  | ASTM D 156     | ASTM D 86                     |                           | ASTM D93    | DIN 53170        | TOTAL IL 013     | IP 391 | ASTM D 611    | calculated             | ASTM D 445        | ASTM D 97   |
| <b>SPECIAL BOILING POINT SPIRITS</b> | Note : all SBP's contain less than 1 ppm benzene and sulphur   |                |                               |                           |             |                  |                  |        |               |                        |                   |             |
| SOLANE PENTANE 15                    | 630  | 30             | 33 (91)                       | 36 (97)                   | <-40 (<-40) | 1                | 10               |        | -             | 65                     | 0.4               |             |
| SOLANE PENTANE 22                    | 630  | 30             | 33 (91)                       | 36 (97)                   | <-40 (<-40) | 1                | 10               |        | -             | 66                     | 0.4               |             |
| SOLANE ISOHEXANE                     | 659  | 30             | 51 (124)                      | 61 (142)                  | <-30 (<-22) | 1.3              | 10               |        | 70 (158)      | 29                     | 0.5               |             |
| SOLANE HEXANE 36                     | 669  | 30             | 65* (149)                     | 70* (158)                 | -27 (-17)   | 1.5              | 5                |        | 67 (153)      | 19                     | 0.5               |             |
| SOLANE HEXANE 45                     | 669  | 30             | 66* (151)                     | 70* (158)                 | -27 (-17)   | 1.5              | 5                |        | 67 (153)      | 19                     | 0.5               |             |
| SOLANE HEPTANE                       | 693  | 30             | 90 (194)                      | 94 (201)                  | -7 (19)     | 2.8              | 3                |        | 68 (154)      | 7.1                    | 0.6               |             |
| SOLANE 60-95                         | 682  | 30             | 62 (144)                      | 94 (201)                  | -26 (-15)   | 2                | 1                |        | 69 (156)      | 11.0                   | 0.5               |             |
| SOLANE 70-95                         | 699  | 30             | 72 (162)                      | 89 (192)                  | -15 (5)     | 2                | 3                |        | 59 (138)      | 12.6                   | 0.6               |             |
| SOLANE 80-110                        | 694  | 30             | 84 (183)                      | 108 (226)                 | -12 (10)    | 3                | 2                |        | 68 (154)      | 7.1                    | 0.7               |             |
| SOLANE 100-120                       | 728  | 30             | 102 (216)                     | 123 (253)                 | 2 (36)      | 6                | 3                |        | 59 (138)      | 3.1                    | 0.7               |             |
| SOLANE 100-140                       | 729  | 30             | 103 (217)                     | 137 (279)                 | 4 (39)      | 8                | 2                |        | 60 (140)      | 2.8                    | 0.7               |             |
| SOLANE 100-155                       | 737  | 30             | 105 (221)                     | 158 (316)                 | 7 (45)      | 12               | 2                |        | 60 (140)      | 1.8                    | 0.8               |             |
| <b>Naphthenic SBP's</b>              | Note : all naphthenic SBP's contain less than 1 ppm benzene and sulphur  |                |                               |                           |             |                  |                  |        |               |                        |                   |             |
| SOLANE CYCLOPENTANE                  | 748  | 30             | 48.5 (119.3)                  | 49.0 (120.2)              | -37 (-35)   | 1.5              |                  |        | 18 (64)       | 38                     | 0.4               |             |
| SOLANE CYCLOHEXANE                   | 782  | 30             | 80.6 (177.1)                  | 80.7 (177.3)              | -20 (-4)    | 2                | 10               |        | 31 (88)       | 11                     | 0.8               |             |
| SOLANE 75-95N                        | 763  | 30             | 80 (176)                      | 87 (189)                  | -15 (5)     | 2.5              | 10               |        | 36 (97)       | 11                     | 0.8               |             |
| SOLANE METHYLCYCLOHEXANE             | 774  | 30             | 100.6 (213.1)                 | 103.7 (218.7)             | -6 (21)     | 5                | 15               |        | 40 (104)      | 4.6                    | 0.9               |             |
| SOLANE 100-130N                      | 766  | 30             | 104 (219)                     | 130 (266)                 | 1 (34)      | 6                | 5                |        | 47 (117)      | 3.1                    | 0.9               |             |
| <b>WHITE SPIRITS</b>                 | Note : all white spirits contain less than 1 ppm benzene, except spirdane HT < 10 ppm and Spirdane K2 < 3 ppm                      |                |                               |                           |             |                  |                  |        |               |                        |                   |             |
| SPIRDANE HT                          | 786  | 30             | 155 (311)                     | 199 (390)                 | 45 (113)    | 65               |                  | 17     | 56 (133)      | 0.254                  | 1.2               |             |
| SPIRDANE K2                          | 800  | 30             | 182 (360)                     | 215 (419)                 | 64 (147)    | 200              |                  | 17     | 62 (144)      | 0.063                  | 1.7               |             |
| SPIRDANE L1                          | 748  | 30             | 137 (279)                     | 157 (315)                 | 24 (75)     | 22               | 100              |        | 66 (151)      | 0.722                  | 0.9               |             |
| SPIRDANE D25                         | 771  | 30             | 143 (289)                     | 163 (325)                 | 28 (82)     | 22               | 50               |        | 63 (145)      | 0.438                  | 0.9               |             |
| SPIRDANE D30                         | 771  | 30             | 148 (298)                     | 172 (342)                 | 38 (100)    | 27               | 100              |        | 67 (153)      | 0.431                  | 1.1               |             |
| SPIRDANE D40                         | 775  | 30             | 156 (313)                     | 198 (388)                 | 44 (111)    | 65               | 100              |        | 68 (154)      | 0.250                  | 1.3               |             |
| SPIRDANE D60                         | 791  | 30             | 182 (360)                     | 216 (421)                 | 65 (149)    | 200              | 100              |        | 73 (163)      | 0.059                  | 1.7               |             |
| SPIRDANE D60L                        | 778  | 30             | 176 (349)                     | 194 (381)                 | 59 (138)    | 115              | 100              |        | 72 (162)      | 0.110                  | 1.7               |             |
| <b>KEROSENES</b>                     | Note : all kerosenes contain less than 1 ppm benzene and less than 2 ppm sulphur, except Ketrul HT < 5 ppm and ketrul 212 < 10 ppm |                |                               |                           |             |                  |                  |        |               |                        |                   |             |
| KETRUL HT                            | 800  | 29             | 188 (370)                     | 249 (480)                 | 68 (154)    | 550              |                  | 16     | 64 (147)      | 0.035                  | 2.0               |             |
| KETRUL 212                           | 814  | 30             | 220 (428)                     | 246 (475)                 | 92 (198)    | 1000             |                  | 17     | 67 (153)      | 0.011                  | 2.5               |             |
| KETRUL D 70                          | 802  | 30             | 187 (369)                     | 245 (473)                 | 68 (154)    | 550              | 50               |        | 70 (158)      | 0.031                  | 2.1               |             |
| KETRUL D 75                          | 809  | 30             | 199 (390)                     | 253 (487)                 | 77 (171)    | 600              | 85               |        | 71 (160)      | 0.016                  | 2.4               |             |
| KETRUL D 80                          | 817  | 30             | 201 (394)                     | 239 (462)                 | 76 (169)    | 800              | 5                |        | 70 (158)      | 0.016                  | 2.4               |             |
| KETRUL D 85                          | 816  | 30             | 213 (415)                     | 241 (466)                 | 85 (185)    | 1000             | 3                |        | 72 (162)      | 0.012                  | 2.7               |             |
| KETRUL 220                           | 805  | 30             | 221 (430)                     | 236 (457)                 | 92 (198)    | 900              | 100              |        | 76 (169)      | 0.011                  | 2.7               |             |
| KETRUL D 100                         | 810  | 30             | 233 (451)                     | 264 (507)                 | 103 (217)   | > 1000           | 10               |        | 80 (176)      | 0.003                  | 3.4               |             |
| <b>GASOIL</b>                        | Note : all gasoils do not contain benzene and contain less than 2 ppm sulphur  |                |                               |                           |             |                  |                  |        |               |                        |                   |             |
| HYDROSEAL G 232 H                    | 820  | 30             | 236 (457)                     | 262 (504)                 | 103 (217)   |                  | 30               |        | 78 (172)      | 0.002                  | 3.6               | -50 (-58)   |
| HYDROSEAL G 240 H                    | 817  | 30             | 254 (489)                     | 282 (540)                 | 116 (241)   |                  | 30               |        | 84 (183)      | 0.0008                 | 4.5               | -40 (-40)   |
| HYDROSEAL G 250 H                    | 816  | 30             | 256 (493)                     | 329 (624)                 | 119 (246)   |                  | 50               |        | 91 (196)      | 0.0003                 | 5.8               | -25 (-13)   |
| HYDROSEAL G270 H                     | 811  | 30             | 260 (500)                     | 291 (556)                 | 123 (253)   |                  | 50               |        | 87 (189)      | 0.0005                 | 4.9               | -33 (-27)   |
| HYDROSEAL G 3 H                      | 815  | 30             | 278 (532)                     | 322 (612)                 | 136 (277)   |                  | 50               |        | 92 (198)      | 0.0001                 | 7.0               | -19 (-2)    |
| HYDROSEAL G 400 H                    | 817  | 30             | 304 (579)                     | 347 (657)                 | 159 (318)   |                  | 80               |        | 101 (214)     | < 0.0001               | 11                | -2 (28)     |
| HYDROSEAL G 290 H                    | 823  | 30             | 289 (552)                     | 373 (703)                 | 149 (300)   |                  | 100              |        | 103 (217)     | < 0.0001               | 14                | -42 (-44)   |
| HYDROSEAL G 300 H                    | 822  | 30             | 295 (563)                     | 378 (712)                 | 151 (304)   |                  | 100              |        | 102 (216)     | < 0.0001               | 13                | -18 (0)     |
| <b>ISOPARAFFINS</b>                  | Note : all Isoparaffins do not contain benzene and contain less than 2ppm sulphur  |                |                               |                           |             |                  |                  |        |               |                        |                   |             |
| ISANE IP 155                         | 746  | 30             | 158 (316)                     | 174 (345)                 | 44 (111)    | 36               | 1                |        | 78            | 0.25                   | 1.2               | <-50 (<-58) |
| ISANE IP 170                         | 760  | 30             | 176 (349)                     | 205 (401)                 | 58 (136)    | 100              | 1                |        | 80            | 0.08                   | 1.7               | <-50 (<-58) |
| ISANE IP 175                         | 763  | 30             | 185 (365)                     | 196 (385)                 | 64 (147)    | 120              | 1                |        | 81            | 0.06                   | 1.4               | <-50 (<-58) |
| ISANE IP 175 T                       | 762  | 30             | 181 (358)                     | 194 (381)                 | 63 (145)    | 120              | 1                |        | 80            | 0.07                   | 1.4               | <-50 (<-58) |
| ISANE IP 185                         | 765  | 30             | 187 (369)                     | 206 (403)                 | 66 (151)    | 200              | 1                |        | 81            | 0.05                   | 1.5               | <-50 (<-58) |
| ISANE IP 185 T                       | 766  | 30             | 190 (374)                     | 208 (406)                 | 67 (153)    | 200              | 1                |        | 80            | 0.05                   | 1.5               | <-50 (<-58) |
| <b>AROMATICS</b>                     | % mas. NF M07024   |                |                               |                           |             |                  |                  |        |               |                        |                   |             |
| TOLUENE                              | 870  | 30             | 110.2 (230.4)                 | 111 (232)                 | 4 (39)      | 6                |                  | 99.6   |               |                        | 0.7               |             |
| XYLENE                               | 870  | 30             | 137.7 (280)                   | 142 (288)                 | 26 (79)     | 15               |                  | 99.8   |               |                        | 0.75              |             |
| ORTHO-XYLENE                         | 883  | 30             | 144 (291)                     | 145 (293)                 | 25 (77)     | 15               |                  | 99.7   |               |                        | 0.75              |             |
| SOLVAREX 9                           | 875  | 30             | 160 (320)                     | 175 (347)                 | 43 (109)    | 36               |                  | 99.5   |               |                        | 0.95              |             |
| SOLVAREX 10                          | 890  | 30             | 188 (370)                     | 215 (419)                 | 68 (154)    | 130              |                  | 99     |               |                        | 1.3               |             |
| SOLVAREX 10 LN                       | 890  | 30             | 185 (365)                     | 200 (392)                 | 65 (149)    | 150              |                  | 99.5   |               |                        | 1.15              |             |