## **Product Specification**

## **BP REGULAR UNLEADED PETROL**



Supply Area: Australia
Product Code: M91UL

**Application:** Fuel for use in spark ignition engines designed to use Unleaded Petrol with a research

octane up to 91. Not for Aviation use.

This fuel complies with the requirements of:-

Queensland Environment Protection regulations effective July 2000

- South Australian Environment Protection (Fuel Quality) Policy 2002.

- NSW EPA

- Fuels Quality Standards Act 2000.

- This fuel complies with the requirements of the West Australian Environment Protection (Diesel & Petrol) regulations of 2001.

Contains an additive to keep injectors and inlet valves clean.

| TEST                            | UNIT    | Typical        | LIMIT          | METHOD     |  |
|---------------------------------|---------|----------------|----------------|------------|--|
| Appearance                      |         | Clear & bright | Clear & Bright | Visual     |  |
| Colour                          |         | Purple or Red  | Purple to Red  | Visual     |  |
| Density @ 15°C                  | kg/L    | 0.72 -0.74     | Report         | ASTM D4052 |  |
| Octane Number - Research (RON)  |         | 91-93          | 91.0 min       | ASTM D2699 |  |
| Octane Number – Motor (MON)     |         | 81-83          | 81.0 min       | ASTM D2700 |  |
| Anti Knock Index AKI            |         | 86             | N/A            | (R+M)/2    |  |
| Sulphur - total                 | mg/kg   | 80             | 150 max        | ASTM D5453 |  |
| Lead                            | mg/L    | <1             | 5 max          | ASTM D3237 |  |
| Phosphorus                      | mg/L    | <1.3           | 1.3 max        | ASTM D3231 |  |
| Aromatics - WA                  | %vol    | 25             | 42 max         | ASTM D1319 |  |
| - Other states                  |         |                | 45 max         |            |  |
| Olefins                         | % vol   | 16             | 18 max         | ASTM D1319 |  |
| Gum-solvent washed              | mg/L    | <10            | 50 max         | ASTM D381  |  |
| Induction Period @ 100°C        | minutes | >420           | 360 min        | ASTM D525  |  |
| Copper Corrosion 3h @ 50°C      |         | <1             | 1 max          | ASTM D130  |  |
| Flexible Volatility Index (FVI) |         |                | Table 1        | Calculated |  |
| Benzene                         | % vol   | 0.6            | 1.0 max        | ASTM D5580 |  |
| Distillation:                   |         |                |                | ASTM D86   |  |
| - 10% evaporated                | °C      | 45             | 65 max         |            |  |
| - 50% evaporated                | °C      | 105            | 115 max        |            |  |
| - 90% evaporated                | °C      | 160            | 183 max        |            |  |
| - FBP                           | °C      | 190            | 210 max        |            |  |
| - Residue                       | % vol   | < 0.5          | 2 max          |            |  |

## Notes:

1. For ports south of and including Carnarvon (Western Australia) and Brisbane (Queensland) during the period 1 APR to 31 AUG the following distillation limits shall apply:

10% evaporated - 60°C max 50% evaporated - 112°C max.

Oxygenates are not added to this fuel, Total Oxygenate is less than 1.0 % volume, in West Australia Oxygenate MTBE is less than 0.1% volume

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Table 1: FVI MAXIMA

| LOCATION OF<br>TERMINALS       | Jan | Feb | Mar        | Apr | Мау | Jun | Jul | Aug | Sep | Oct | Nov        | Dec |
|--------------------------------|-----|-----|------------|-----|-----|-----|-----|-----|-----|-----|------------|-----|
| New South<br>Wales             | 98  | 100 | 102        | 107 | 114 | 120 | 120 | 117 | 110 | 105 | 102        | 98  |
| Victoria                       | 95  | 96  | 102        | 110 | 119 | 124 | 125 | 121 | 116 | 109 | 104        | 99  |
| South Australia                | 89  | 91  | 97         | 104 | 114 | 119 | 119 | 114 | 109 | 100 | 95         | 91  |
| Tasmania                       | 106 | 106 | 112        | 117 | 124 | 127 | 127 | 125 | 121 | 117 | 114        | 110 |
| South<br>Queensland            | 98  | 98  | 98/<br>104 | 108 | 113 | 116 | 116 | 112 | 108 | 104 | 100/<br>98 | 98  |
| Gladstone<br>Mackay            | 96  | 98  | 102        | 105 | 108 | 110 | 108 | 106 | 103 | 98  | 96         | 96  |
| Townsville<br>Nth QLD          | 91  | 97  | 101        | 105 | 108 | 110 | 108 | 106 | 98  | 92  | 90         | 90  |
| Darwin<br>Alice Springs        | 90  | 94  | 98         | 102 | 102 | 102 | 100 | 98  | 96  | 92  | 90         | 90  |
| Perth<br>Kalgoorlie            | 93  | 95  | 100        | 107 | 112 | 118 | 119 | 118 | 114 | 108 | 102        | 97  |
| Bunbury<br>Albany<br>Esperance | 100 | 100 | 108        | 116 | 120 | 122 | 122 | 120 | 118 | 110 | 106        | 100 |
| Port Hedland<br>N.W. Australia | 90  | 92  | 94         | 96  | 104 | 108 | 104 | 100 | 94  | 88  | 88         | 88  |
| Geraldton<br>Carnarvon         | 92  | 94  | 98         | 106 | 112 | 118 | 114 | 112 | 108 | 100 | 94         | 92  |

FVI= RVP + 0.7 E70 where E70 = % Evap. @ 70C° and RVP= Reid Vapour Pressure/kPa

BP guarantees that this product is fit for the purposes described above, and meets all legislative requirements. BP reserves the right to vary this specification from time to time without notice provided the product continues to meet legislative requirements.

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