

### BUTANE MIX

| COMPONENT OR CHARACTERISTIC  | ALLOWABLE                   | TEST METHOD |
|------------------------------|-----------------------------|-------------|
| Normal Butane                | 60% liquid volume, typical  | ASTM D2163  |
| Isobutane                    | 7% liquid volume, typical   | ASTM D2163  |
| Propane, Propylene & Lighter | 0.5% liquid volume, typical | ASTM D2163  |
| Butenes                      | 40% liquid volume, typical  | ASTM D2163  |
| Butadiene                    | 1% liquid volume, typical   | ASTM D2163  |
| Pentanes & Heavier           | 0.5% liquid volume, typical | ASTM D2163  |
| Total Sulfur                 | 70 ppm by weight, maximum   | ASTM D5504  |
| Vapor Pressure               | 60 psig, maximum            | ASTM D2598  |
| Free Water                   | None                        | Visual      |
| Corrosion @ 100° F           | No. 1 Copper Strip, maximum | ASTM D1838  |
| Total Oxygenates             | 50 ppm by weight, maximum   | UOP 845     |

### ISOBUTANE MIX

| COMPONENT OR CHARACTERISTIC  | ALLOWABLE                   | TEST METHOD |
|------------------------------|-----------------------------|-------------|
| Isobutane                    | 85% liquid volume, typical  | ASTM D2163  |
| Propane, Propylene & Lighter | 2% liquid volume, typical   | ASTM D2163  |
| Butenes                      | 12% liquid volume, typical  | ASTM D2163  |
| Butadiene                    | 1% liquid volume, typical   | ASTM D2163  |
| Pentanes & Heavier           | 0.5% liquid volume, typical | ASTM D2163  |
| Total Sulfur                 | 140 ppm by weight, maximum  | ASTM D5504  |
| Vapor Pressure               | 74 psig, maximum            | ASTM D2598  |
| Free Water                   | None                        | Visual      |
| Corrosion @ 100° F           | No. 1 Copper Strip, maximum | ASTM D1838  |

## PENTANE PLUS MIX

| COMPONENT OR CHARACTERISTIC | ALLOWABLE                   | TEST METHOD |
|-----------------------------|-----------------------------|-------------|
| Pentanes & Heavier          | 97% liquid volume, typical  | ASTM D2163  |
| Butanes & Lighter           | 3% liquid volume, typical   | ASTM D2163  |
| Total Olefins               | 35% liquid volume, typical  | ASTM D5134  |
| Total Sulfur                | 2000 ppm by weight, typical | ASTM D4294  |
| Vapor Pressure (DVPE)       | 13.5 PSIA, typical          | ASTM D5190  |
| Free Water                  | None                        | Visual      |
| Corrosion @ 100° F          | No. 1 Copper Strip, maximum | ASTM D1838  |
| <b>DISTILLATION:</b>        |                             |             |
| Temperature @               |                             |             |
| 25% Evaporation             | 140° F, Maximum             | ASTM D86    |
| 90% Evaporation             | 275° F, Maximum             | ASTM D86    |
| End Point                   | 375° F, Maximum             | ASTM D86    |