

GAS INNOVATIONS

CERTIFICATE OF ANALYSIS N-BUTANE EXTRACTION GRADE

| <u>Guaranteed Specifications</u> | | <u>Lot Analysis</u> | <u>Test Method</u> | <u>Instrument</u> |
|--------------------------------------|-----------------------------|---------------------|---|-------------------|
| 99.5 % + | n-Butane | 99.75 % + | ASTM 2163 | GC/FID |
| Sum of all impurities to be < 0.50 % | Methane | < 1 PPM | ASTM 2163 | GC/FID |
| | Ethane | < 1 PPM | ASTM 2163 | GC/FID |
| Water < 5 PPM | Propylene (Propene) | < 1 PPM | ASTM 2163 | GC/FID |
| | Isobutane | 1991 PPM | ASTM 2163 | GC/FID |
| Liquid Phase Analysis | Propane | 10 PPM | ASTM 2163 | GC/FID |
| | Neopentane | 21 PPM | ASTM 2163 | GC/FID |
| | Isopentane | < 1 PPM | ASTM 2163 | GC/FID |
| | N-pentane | 426 PPM | ASTM 2163 | GC/FID |
| | C6+ | < 1 PPM | ASTM 2163 | GC/FID |
| | Hexane | < 1 PPM | ASTM 2163 | GC/FID |
| | Total BTEX | < 0.1 PPM | ASTM 5580 | GC/FID |
| | Total Alcohols (MeOH, etc.) | < 1 PPM | ASTM 7423 | GC/FID |
| | Total Sulfur | < 0.1 PPM | ASTM 5623 | GC/FPD |
| | Total Metals (Mg, K, etc.) | < 1 PPB | | ICP-MS |
| | Water | < 5 PPM | Electronic (GE Series 3 H2O Monitor) | |

Certified by: _____

Date: _____

SO# 00

Cylinder Serial Number(s)

Batch Number
BUT-060822-I

CUSTOMER PO#: 000

Lot Number: BUT-060822-I-7

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