

PLANT: Channahon, IL

MFG DATE: 10-09-2023 07:49 AM

GLOBAL RARE GASES

2533 TRACY ROAD

NORTHWOOD, OH 43619

CERTIFICATE OF ANALYSIS

DCPC PRODUCT NAME: n-Butane, Instrument Purity, 2.5

CUST PRODUCT CODE:

CUST P.O. NUMBER : 1340

DOT SHIPPING INFORMATION

NPCA - HMIS RATINGS

Petroleum Gases, Liquefied

HEALTH 1

FLAMMABILITY 4

REACTIVITY 0

2.1, Flammable Gas, UN1075

PERSONAL PROTECTION -

NON CORROSIVE

PERSONAL PROTECTION INFORMATION TO BE SUPPLIED BY USER

DCPC LOT NUMBER : 2023-41615-00_4035

SOURCE : 4035

WEIGHT LOADED : 39180 lb

SAMPLED BY : TM

ANALYST : TM

DELIVERY DATE : 10/10/23 @ 9:00AM

EXPIRATION DATE : 10-09-2033

| COMPONENT | WEIGHT% | MOLE% | LIQ VOL% (60 °F) |
|------------|---------|---------|---------------------|
| ETHANE | 0.0000 | 0.0000 | 0.0000 |
| PROPANE | 0.0000 | 0.0000 | 0.0000 |
| ISOBUTANE | 0.1500 | 0.1500 | 0.1553 |
| N-BUTANE | 99.8180 | 99.8242 | 99.8146 |
| NEOPENTANE | 0.0320 | 0.0258 | 0.0302 |
| ISOPENTANE | 0.0000 | 0.0000 | 0.0000 |
| N-PENTANE | 0.0000 | 0.0000 | 0.0000 |

DENSITY AT 60 °F = 4.864 LB/GL
 DENSITY AT 70 °F = 4.810 LB/GL
 SPC GRAVITY AT 60 °F = 0.583 G/CC
 CALC. PRES. AT 70 °F = 16.92 PSIG
 CALC. PRES. AT 100 °F = 37.53 PSIG
 ACT. PRES. AT 70 °F = 17.00 PSIG

MOISTURE CONTENT (PPMW) : .6
 TOTAL SULPHUR (PPMW) : < 1
 RESIDUE (PPMW) : < 5
 BENZENE (PPMW) : < 1.0

APPEARANCE: Clear & Colorless
 ODOR: Pass

PREPARED BY: *Ju Brown* *** SEE PREVIOUSLY PROVIDED *** DATE: 10-09-2023
 Pure Innovation with YOU in Mind.



24338 West Durkee Road | Channahon, IL 60410 | 815-424-2000

BTEX Analysis- Addendum

Ship To: Global Rare Gases

Shipper's No: 2023-41615-00

Plant: Channahon
Product: n-Butane, Instrument Purity, 2.5
Sample ID: 4035

Manufacture Date: 10/6/23
Customer Part No:

BTEX Analysis Report

| Component (Liquid Phase) | Results | Specifications | Method |
|--------------------------|---------|----------------|--------------------|
| Benzene | ND | < 1.0 - ppmw | Gas Chromatography |
| Ethylbenzene | ND | < 1.0 - ppmw | Gas Chromatography |
| Toluene | ND | < 1.0 - ppmw | Gas Chromatography |
| Xylene (m,p,o) | ND | < 1.0 - ppmw | Gas Chromatography |

ND - Not Detected (Below Minimum Detection Limit, MDL)

MDL - < 0.5 ppm

Prepared by

Jennifer Brown

October 9, 2023