



Airborne Labs International

22C World's Fair Drive Somerset, NJ 08873 +1-732-302-1950
Sales@airbornelabs.com www.airbornelabs.com

Carbon Dioxide (CO₂) Analysis

ISBT Beverage-Grade Program[®]

Customer Company
Street Address 1
City, State ZIP
Phone: nnn-xxx-xxxx, Cell: nnn-xxx-xxxx, (Fax: nnn-xxx-xxxx)
Attn.: Mr./Ms./Dr. John Smith and Mr./Ms./Dr. Derek Jeter
E-Mail:
Sample ID.: Liquid CO₂: "See Sample ID on Analysis Auth Form"
Sample ID.: Received in a High Pressure, Passivated Sample Cylinder #

ALI Track No.: nnnnn
Received On: mm/dd/yy
Report Date: mm/dd/yy
Invoice No.: PO
Sample Date: mm/dd/yy
Process Stage: Final

Test Description/Units:

CO₂ Identification (Positive/ Negative by USP [DT]): _____

Comments: Positive ID = Positive Detector Tube Response.

CO₂ Purity (% v/v, ISBT 2.0 [GC/DID], {ZN}): _____

Comments: Obtained by NCG + target list impurity subtraction method.

Water Vapor (H₂O, ppm v/v, ISBT 3.0 [FTIR]): _____

Oxygen (O₂, ppm v/v, ISBT 4.0 [GC/DID]): _____

Comments: Result represents total O₂ + Ar ppm v/v.

Nitrogen (N₂, ppm v/v, ISBT 4.0 [GC/DID]): _____

Carbon Monoxide (CO, ppm v/v, ISBT 5.0 [GC/DID]): _____

Ammonia (NH₃, ppm v/v, ISBT 6.0 [DT]): _____

Oxides of Nitrogen (NO_x, ppm v/v, ISBT 7.0 [DT]): _____

Comments: *Speciation required if above 2.5 ppm v/v. Maximum 2.5 ppm of either or both NO & NO₂

Nitric Oxide (NO, ppm v/v, ISBT 7.1 [DT]): _____

Nitrogen Dioxide (NO₂, ppm v/v, ISBT 7.2 [DT]): _____

Non-Volatile Residue (NVR, ppm w/w, ISBT 8.0 [Grav]): _____

Comments: No visible matter observed.

Non-Volatile Organic Residue (NVOR, ppm w/w, ISBT 8.0 [Grav]): _____

Comments: No NVOR film observed.

Phosphine (PH₃, ppm v/v, ISBT SM 3.0 [DT]): _____

Comments:

Total Hydrocarbons (THC, ppm v/v as CH₄, ISBT 10.0): _____

Headspace Vapor Above Liquid Phase: _____

Flash Vaporized Liquid Phase: _____

Total Non-Methane Hydrocarbons (TNMHC, ppm v/v as CH₄, ISBT 10.1): _____

Methane (CH₄, ppm v/v, ISBT 10.1 [GC]): _____

Methanol (MeOH, ppm v/v, ISBT 9.0 [GC]): _____

Acetaldehyde (AA, ppm v/v, ISBT 11.0 [GC]): _____

Total Other Volatile Oxygenates (TOVO, ppm v/v, ISBT 11.0 [GC]): _____

Comments: Obtained by summation of all speciated VOX target impurities less AA, MeOH & EtOH

Aromatic Hydrocarbon Content (ppb v/v as Benzene, ISBT 12.0 [GC]): _____

Comments: No target BTEX impurities detected.

Total Sulfur Content* (TSC* ppm v/v as S, ISBT 14.0): _____

Comments: Obtained by summation of all speciated VSC target impurities less SO₂

Sulfur Dioxide (SO₂, ppm v/v, ISBT 14.0 [GC]): _____

Sensory Tests

Odor of Snow Test (Pass/Fail, ISBT 15.0): _____

Comments: *An ISBT Snow test requires a 20 lb tank sample.

Appearance in Water (Pass/Fail, ISBT 16.0): _____

Odor & Taste in Water (Pass/Fail, ISBT 16.0): _____

Comments:

Supplemental Tests

Hydrogen Cyanide (HCN, ppm v/v by ISBT SM-1.0 [GC]): _____

Vinyl Chloride (VCl, ppm v/v by ISBT SM-2.0 [GC]): _____

Ethylene Oxide (ETO, ppm v/v by ISBT 11.0 [GC]): _____

Result LOQ ISBT Limit

5 positive

5 99.9 min

1 20 max

1 30 max

1 na

1 10 max

0.5 2.5 max

0.5 5 max*

0.5 2.5 max

0.5 2.5 max

2 10 max

2 5 max

0.25 0.3 max

0.1 50 max

0.1 50 max

0.1 20 max

0.1 50 (see THC)

0.1 10 (see THC)

0.05 0.2 max.

0.1 na

2 20 max

0.01 0.1 max

0.05 1 max

na none

na clear

na none

0.2 nd

0.1 nd

0.1 0.2 max

