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more productive



ISO9001:2015 Certified Company
ISO/IEC17025:2017 Accredited
Customer & Order Information:

LGEPKG NORTH ROYALTON OH HS
14788 YORK RD,
NORTH ROYALTON, OH 44133-4508

Linde Order Number: **72411760**
Customer PO Number: **80420038**

Linde Gas & Equipment Inc.
ISO 9001 Registered
37256 Highway 30
Geismar, LA 70734
Tel: 225-677-7700
Fax: 225-673-3531

Certificate Issuance Date: **5/11/2023**

Certification Date: **5/11/2023**

Lot Number: **70340 3129 4I**

Part Number: **ME BU.4X23ZP-AT**

DocNumber: **668115**

Expiration Date: **5/10/2025**

CERTIFICATE OF ANALYSIS

Primary Standard

Component	Requested Concentration (Molar)	Certified Concentration (Molar)	Analytical Reference	Analytical Uncertainty
Butane	0.4 %	0.400 %	2	± 0.2 %
Carbon dioxide	3 %	3.01 %	1	± 0.2 %
Ethane	3.5 %	3.53 %	1	± 0.2 %
n-Heptane	200 ppm	197 ppm	2	± 0.08 %
n-Hexane	500 ppm	497 ppm	2	± 0.08 %
Isobutane	0.4 %	0.396 %	2	± 0.2 %
Isopentane	0.15 %	0.151 %	2	± 0.08 %
Nitrogen	2.5 %	2.51 %	1	± 0.2 %
n-Pentane	0.15 %	0.151 %	2	± 0.08 %
Propane	1 %	1.00 %	2	± 0.1 %
Methane	88.83 %	88.7826 %	1	± 0.02 %

Cylinder Style: **AT**
Cylinder Pressure @ 70 F: **1600 psig**

Cylinder Volume: **207 ft³**
Valve Outlet Connection: **CGA 350**

Cylinder Number(s): **GN0028765**

Fill Date: **5/9/2023**

Analysis Date: **5/10/2023**

Filling Method: **Gravimetric**

Comments: **Recommended operating temperature within 32°F (0°C) and 125°F (52°C).**

Analyst: **Mark Hebing**

QA Reviewer: **Kristen Hanna**

Key to Analytical Techniques:

Reference	Analytical Instrument - Analytical Principle	Reference Standard
1	Mettler IND560X - Gravimetric Method	NIST Traceable Wt Kit 2JPG/JPH/JPI/JPJ/NSV/NSW, Expiration Date: 11/02/2023, Traceable to NIST Certificate# 3299883B
2	Sartorius Signum 3 - Gravimetric Method	NIST Traceable Wt Kit K303/F938, Expiration Date: 11/03/2023, Traceable to NIST Certificate# 2656562AVE

The gas calibration cylinder standard prepared by Linde Gas & Equipment Inc. is considered a certified standard. It is prepared by gravimetric, volumetric, or partial pressure techniques. The calibration standard provided is certified against Linde Gas & Equipment Inc. Reference Materials which are traceable to the International System of Units (SI) through either weights traceable to the National Institute of Standards and Technology (NIST) or Measurement Canada, or through NIST Standard Reference Materials or equivalent where available.

Note 1: All expressions for concentration (e.g., % or ppm) are for gas phase, by mole unless otherwise noted. The analytical uncertainties above are expressed as relative expanded uncertainty, U=kuc, with a coverage factor k=2. The true concentration is asserted to lie in the interval of the certified concentration +/-U with a level of confidence of approximately 95%.

Note 2: This certificate may not be reproduced other than in full except with the prior written approval of the issuing laboratory.

IMPORTANT

The information contained herein has been prepared at your request by personnel within Linde Gas & Equipment Inc. While we believe the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall liability of Linde Gas & Equipment Inc. arising out of the use of the information contained herein exceed the fee established for providing such information.



Picking Ticket

Page

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Picking Ticket #



96991856

Ship From : 70340

LINDE GAS & EQUIPMENT INC.
LGEPKG GEISMAR TX P
37256 HIGHWAY 30
GEISMAR LA 70734-3519
225-677-7700

Ship To : 70541 CU Cust # : 02848
LGEPKG NORTH ROYALTON OH HS
14788 YORK RD
NORTH ROYALTON OH 44133-4508

Caller Name :
Caller Phone # :

Order # : 72411760 ORD TYPE : ZT
Shipment # :
Order Date : 4/5/2023 Promise Date : 4/21/2023
Order Processed By : JACOB KOCHIS,
Phone # :
Ship Via : Common Carrier
Route# :
Carrier Name :
Rev Brn : 70340 4/5/2023 08:53AM EST

Sold To: 70541

LGEPKG NORTH ROYALTON OH HS
14788 YORK RD
NORTH ROYALTON OH 44133-4508

Customer #



70541

Order #



72411760

PO # : 80420038
Release # :
Phone # : 440-237-8770

FOR CSA ORDER 94767235

FOR CSA ORDER 94707255														
QTY SHIP	UM	H M	ID NUMBER	DESCRIPTION & HAZARD CLASS	LINE NO	ITEM NO/ CUST.ITEM NO	QTY ORDER	QTY BKORD	CYLINDERS SHIP RET		TAX Y/N	VOL/ WT	UNIT AMOUNT	EXTENDED AMOUNT
1	CYL	X	UN1954	COMPRESSED GAS, FLAMMABLE, N.O.S. (METHANE, ETHANE), 2.1	1.000	ME BU.4X23ZP-AT	1	0	1		Y	183 CF		
												98.94 LB		
				METH-BU 4000 PPM 11 COMP MIX PS AT ISO17025 Certified		Mfg # 05-23-18-0833sm REPORT ANALYTICAL UNCERTAINTY FOR EACH COMPONENT WITH REPUTED UNCERTAINTY <1% - BUTANE 4.0 0.4% CARBON DIOXIDE 3% ETHANE 5.0 3.5% HEPTANE 0.02% HEXANE 0.05% ISOBUTANE 4.0 0.4% ISOPENTANE 0.15% NITROGEN 2.5% PENTANE 0.15% PROPANE 4.0 1% METHANE 88.83% (BAL)								

Total weight

98.94 LB

EMERGENCY RESPONSE
TELEPHONE NUMBER:
CALL CHEMTREC 1-800-424-9300

WARNING: Transporting flammable gases and/or hazardous materials in an enclosed van, automobile or automobile trunk is very dangerous because it can cause a fire or explosion resulting in serious injury or death. Read cylinder label warnings, Safety Data Sheets (SDSs) and/or safety booklet P-3499. PLACARDS OFFERED ☐ ACCEPTED ☐ REJECTED

Sub Total

Tax (%)

Total Sales

This is to certify that the above named materials are properly classified, described, packaged, marked, labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

www.lindedirect.com/legal-docs/terms-and-conditions

Authorized Signature _____

Terms & Conditions

Received by _____