



4063 New Castle Ave, Bldg. 4061 New Castle, DE 19720 www.keengas.com P: (800) Keen-Gas

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CERTIFICATE OF CONFORMANCE

Keen Compressed Gas Co. Is Accredited to the ISO/IEC 17025:2017 Testing and Calibration Laboratory Standard. Keen's Quality Management System, Enables Keen to Provide the Highest Level of Testing, Calibration, and Traceability to Meet or Exceed the Minimum Specifications Listed for the Mixed Gas Conformance Requested.

Mixed Gas – HYDROGEN (H2) and ARGON (Ar)

| | | | | | V | | |
|--|----------------------------------|--|--|-------------------------|--------------------|---------------------------|--|
| | | | NDUSTRIAL 2,3,4,5 | CERTIFIED | | PRIMARY | |
| | | 11' | INDUSTRIAL 777 | | X ^{3,4,5} | STANDARD ^{3,4,5} | |
| Hydrogen Pure Gas | ydrogen Pure Gas Minimum Purity: | | ≥ 99.95 | ≥9 | 99.95 | ≥99.95 | |
| Argon Pure Gas Minimum Purity ¹ : | | | ≥99.997 | | 9.997 | ≥99.997 | |
| Minor Component Specification ⁶ : | | 2% - 35%² | | 2% - 35% | | 2% - 35% | |
| iviinor Compone | ent Specifications: | | 2% – 35% | 10 ppm – 1% | | 10 ppm – 1% | |
| Minor Component Tolerance: | | | 0% - 0.5 Absolute | +/- 2% | | +/- 1% | |
| | | C | >5.0% +/- 10% | | | | |
| Moisture: | | | ≤ 15 ppm | om ≤ 10 p | | ≤8 ppm | |
| Dew Point: | | | -71°F | -76°I | | -7°F | |
| CGA Connection: | | | 350 | 350 | | 350 | |
| Lot Label Tracking: | | | No | Yes | | Yes | |
| TECHNICAL | | | | | | | |
| UN ID: 1954 | | DOT Classification: 2.1 Flammable Gas | | | le Gas | | |
| DOT Ship Name: Compre | | | essed Gas Flammable, N.O.S (Hydrogen, Argon) | | | | |
| HYDROGEN | | | ARGON | | | | |
| Molecular Weight: | 2.016 g/mol | Molecular Weight: | | 39.95g/mol | | | |
| Specific Volume: 192 ft ³ /lb | | Specific Volume: | | 9.7 ft ³ /lb | | | |
| CAS NO: | AS NO: 1333-74-0 | | CAS NO: 7 | | 7440-37- | 1 | |

Notes:

- 1. Produced by Air Liquefaction Process Which Includes Trace Quantities of Neon, Helium and Nitrogen
- 2. Component Homogenization Results Excluded from Industrial Conformance Guarantee
- 3. Certificate of Analysis Available Upon Request (Includes Lot Tracking)
- 4. Meets AWS Specification A5.32 (ISO 14175) R1-ArH-(varies 2 to <15)
- 5. Meets AWS Specification A5.32 (ISO 14175) R2-ArH-(varies <15 to 35)
- 6. Hydrogen Concentrations ≤2.49% Classified in Accordance with US DOT Regulations as a 2.2 Non-Flammable, UN 1956 Mixture