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## **CERTIFICATE OF CONFORMANCE**

**Keen Compressed Gas Co.** Is Accredited to the ISO/IEC 17025:2017 Testing 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 NITROGEN (N2)

					V. //		
			INDUCTOLAL 2.3	CERTIFIED		PRIMARY	
			INDUSTRIAL <sup>2,3</sup>		1IX <sup>3</sup>	STANDARD <sup>3</sup>	
<b>Hydrogen Pure Gas Minimum Purity:</b>		y:	≥ 99.95		99.95	≥99.95	
Nitrogen Pure Gas Minimum Purity <sup>1</sup> :		<sup>1</sup> :	≥99.998 ≥9		9.998	≥99.998	
Minor Component Specification <sup>4</sup> :		4.	1% - 35%²		- 35%	2% - 35%	
iviinor Compone	ent Specification		1% - 35%	10 pp	om – 1%	10 ppm – 1%	
Minor Component Tolerance:		≤5.0	0% -  0.5 Absolute	1/ 20/		1/ 10/	
iviinor Comp	onent Tolerand	e:	>5.0% +/- 10%	+/- 2%		+/- 1%	
Moisture:		e:	≤ 15 ppm	≤ 10 ppm		≤ 8 ppm	
Dew Point:		t:	-71°F	71°F -		-7°F	
CGA Connection:		n:	350		350	350	
Lot Label Tracking:		g:	No	Yes		Yes	
TECHNICAL							
UN ID: 19		1954	<b>DOT Classification:</b> 2.1 Flam		. Flammab	nmable Gas	
DOT Ship Name: Com			oressed Gas Flammable, N.O.S (Hydrogen, Argon)				
HYDROGEN			NITROGEN				
Molecular Weight: 2.016 g/mol			Molecular Weight:		28.014 g/mol		
Specific Volume: 192 ft <sup>3</sup> /lb			Specific Volume:		13.98 ft <sup>3</sup> /lb		
<b>CAS NO:</b> 1333-74-0			CAS NO:		7727-37-9		

## Notes:

- 1. Produced by Air Liquefaction Process Which Includes Trace Quantities of Neon, Helium and Argon
- 2. Component Homogenization Results Excluded from Industrial Conformance Guarantee
- 3. Certificate of Analysis Available Upon Request (Includes Lot Tracking)
- 4. Hydrogen Concentrations ≤5.7% Classified in Accordance with US DOT Regulations and Compressed Gas Association Publication (P-23, Standard for Categorizing Gas Mixture Containing Flammable and Non-Flammable Components) shall be marked as a 2.2 Non-Flammable, UN 1956 Mixture