



## CERTIFICATE OF CONFORMANCE

**Keen Compressed Gas Co.** Quality Control Program, Enables Keen To Meet or Exceed the Minimum Specifications Listed For The Product Grades Named Below In Compliance With Standard Operating Procedures, Industry and/or Government Guidelines. The Product Grades Below Are Eligible To Be Received With A Certificate of Batch or Individual Cylinder Analysis Upon Request.

### Helium (He)

	Balloon Grade	Zero <sup>2,3,4</sup>	Grade 4.7 <sup>2,4</sup>	Grade 5.0 <sup>2,4</sup>	Grade 5.5 <sup>2,4</sup>
<b>Minimum Purity:</b>	99.95	99.997	99.997	99.999	99.9995
<b>Carbon Dioxide:</b>	NT	NT	NT	Sum ≤ 0.5 ppm	Sum ≤ 0.5 ppm
<b>Carbon Monoxide:</b>	NT	NT	NT		
<b>Hydrogen:</b>	NT	≤ 1.0 ppm	≤ 1.0 ppm	≤ 1.0 ppm	≤ 1.0 ppm
<b>Neon <sup>2</sup>:</b>	NT	NT	NT	NT	≤ 2.0 ppm
<b>Nitrogen:</b>	NT	≤ 5.0 ppm	≤ 5.0 ppm	< 4.0 ppm	≤ 1.0 ppm
<b>Oxygen <sup>2</sup>:</b>	NT	≤ 3.0 ppm	≤ 3.0 ppm	≤ 1.0 ppm	≤ 0.5 ppm
<b>Odor:</b>	NT	None	None	None	None
<b>Total Hydrocarbon <sup>2</sup>:</b>	NT	≤ 0.5 ppm	≤ 1.0 ppm	≤ 0.5 ppm	≤ 0.2 ppm
<b>Moisture <sup>2</sup>:</b>	NT	≤ 3.0 ppm	≤ 3.0 ppm	≤ 1.0 ppm	≤ 1.0 ppm
<b>Dew Point:</b>	-72°F	-92°F	-92°F	-101°F	-101°F
<b>Boiling Point</b>	-452°F	-452°F	-452°F	-452°F	-452°F
<b>CGA Connection:</b>	580	580	580	580	580
<b>Lot Label Tracking:</b>	No	Yes	Yes	Yes	Yes
<b>Reference Item No:</b>	HE2	RSG 217	RSG 218	RSG 221	RSG 223
<b>TECHNICAL</b>					
<b>UN ID:</b>	1046		<b>Molecular Weight:</b>	4 g/mol	
<b>DOT Classification:</b>	2.2 Non-Flammable Gas		<b>Specific Volume:</b>	96.7 cf/lb	
<b>DOT Ship Name:</b>	Helium, Compressed		<b>CAS NO:</b>	7440-59-7	

**Notes:**

1. NT – Not Tested
2. Certificate of Analysis Specification Results Available Upon Request
3. Zero Grade Refers to Total Hydrocarbon Less Than 0.5 ppm
4. Meet MIL-PRF-27407B Specification