Acetylene

**Description**

Synonym: Ethyne, Ethine

Formula: \( \text{C}_2\text{H}_2 \)

**Gas Data**

Molecular Weight: 26.04

Density:
- \( 1.09 \text{ kg/m}^3 \) @ 21.1°C, 101.325 kPa
- \( 0.0680 \text{ lb/ft}^3 \) @ 70°F, 14.696 psia

Specific Volume:
- \( 0.917 \text{ m}^3/\text{kg} \) @ 21.1°C, 101.325 kPa
- \( 14.7 \text{ ft}^3/\text{lb} @ 70°F, 14.696 \text{ psia} \)

**Safety Information**

LFL in Air: 2.5%

UFL in Air: 100%

Property Statement:
Forms explosive acetylides with copper, mercury or silver. Dissolved in acetone.

**Shipping Information**

CAS Registry Number: 74-86-2

UN Number: UN 1001

ECCN Number: EAR99

DOT Proper Shipping Name: Acetylene, Dissolved

DOT Classification: 2.1 (Flammable Gas)

DOT Label: FLAMMABLE GAS

TC Shipping Name: Acetylene, Dissolved

TC Classification: 2.1

TC Label: FLAMMABLE GAS

**Cylinder Specifications**

<table>
<thead>
<tr>
<th>Cylinder Size</th>
<th>Valve Outlet CGA No.</th>
<th>Pressure psig @ 70°F</th>
<th>Pressure kPa @ 21.1°C</th>
<th>Approximate Ship Weight lb</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1B</td>
<td>510</td>
<td>250</td>
<td>1,724</td>
<td>210</td>
<td>95</td>
</tr>
<tr>
<td>2B</td>
<td>510</td>
<td>250</td>
<td>1,724</td>
<td>42</td>
<td>19</td>
</tr>
</tbody>
</table>

**Gas Grade Purity Specifications**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Cylinder Size</th>
<th>US Content</th>
<th>Metric Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylene, Purified 99.6%</td>
<td>G1301202</td>
<td>1B*</td>
<td>330 ft³</td>
</tr>
<tr>
<td>Guaranteed Specifications</td>
<td>G1301241</td>
<td>2B*</td>
<td>40 ft³</td>
</tr>
<tr>
<td>Acetylene, CP Grade 98%</td>
<td>G1301002</td>
<td>1B*</td>
<td>330 ft³</td>
</tr>
</tbody>
</table>

A Certificate of Conformance will be provided on request.

*Contents may vary slightly due to porosity of filler material.

Do Not Discharge This Gas At Pressures Exceeding 15 psig (104 kPa)

www.mathesontrigas.com