LPG ARGOGEN® IG-01 is an inert gas naturally present in the atmosphere, therefore its greenhouse effect is nil and its ozone layer depletion potential is zero. It is chemically inert, non-conductive, colourless, odourless and flavourless. Argon is no corrosive and may be used at normal temperatures with such materials as nickel, steel, stainless steel, copper, brass, bronze and plastics.

LPG ARGOGEN® IG-01 extinguishing systems are based on the principle of reducing the oxygen concentration inside the protected hazard. The oxygen concentration is minimized by the application of Argon until it reaches a level where combustion is no longer supported. Each system is designed so as to decrease oxygen to a specific level. When discharged, Argon is quickly and uniformly distributed within the enclosure, achieving design concentration in 60 seconds. Discharge...
LPG ARGOGEN® IG-01 is stored in high-pressure cylinders in the form of compressed gas, thus space required for such cylinder storage depends on pressure and capacity. IG-01 fire extinguishing systems are designed for a cylinder filling pressure of 200/300 bar. LPG uses cylinders of 80 lt and 140 lt. capacity, thereby, optimizing in space and cost.

Although the method LPG ARGOGEN® IG-01 systems use to extinguish fires is the same as the method used by CO₂ (reduction of oxygen concentration within the hazard), IG-01 is safe for use in occupied areas and excellent visibility is maintained during discharge.

LPG ARGOGEN® IG-01 is ideal for the protection of archives, museums, libraries and any other hazard including valuable or unique property. Likewise it is suitable for the protection of computer rooms, telephone exchange equipment and any other electrical installation that may present a fire hazard.

### Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical name</td>
<td>Argon</td>
</tr>
<tr>
<td>Chemical formula</td>
<td>Ar</td>
</tr>
<tr>
<td>Denomination according to ISO 14520 and NFPA 2001</td>
<td>IG-01</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>39.9</td>
</tr>
<tr>
<td>Boiling point at 1.013 bar</td>
<td>-185.9°C</td>
</tr>
<tr>
<td>Critical temperature</td>
<td>-122.3°C</td>
</tr>
<tr>
<td>Critical pressure</td>
<td>49 bar</td>
</tr>
<tr>
<td>Maximum filling pressure</td>
<td>200/300 bar</td>
</tr>
<tr>
<td>Typical design concentration for heptane</td>
<td>48.8%</td>
</tr>
<tr>
<td>Flooding factor for heptane at 20°C</td>
<td>0.658 m³/m³</td>
</tr>
<tr>
<td>Design concentration for surface fires class A</td>
<td>39%</td>
</tr>
<tr>
<td>Flooding factor for surface fires class A</td>
<td>0.470 m³/m³</td>
</tr>
<tr>
<td>NOAEL</td>
<td>43%</td>
</tr>
<tr>
<td>LOAEL</td>
<td>52%</td>
</tr>
<tr>
<td>Maximum concentration in a 5’ exposure</td>
<td>43%</td>
</tr>
<tr>
<td>Ozone depletion potential</td>
<td>0</td>
</tr>
<tr>
<td>Greenhouse effect potential</td>
<td>0</td>
</tr>
</tbody>
</table>

### Product Approvals:

- **VdS**
- **LPCB**
- **CNP**
- **APCI**

### Design Concentration (for Class A Fires)

<table>
<thead>
<tr>
<th>Volume (m³)</th>
<th>ARGON 200</th>
<th>ARGON 300</th>
<th>ARGON 200</th>
<th>ARGON 300</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 m³</td>
<td>38%</td>
<td>38%</td>
<td>38%</td>
<td>38%</td>
</tr>
<tr>
<td>1,000 m³</td>
<td>38%</td>
<td>38%</td>
<td>38%</td>
<td>38%</td>
</tr>
<tr>
<td>Concentration factor at 20°C (m³/m²) for Class A Fires</td>
<td>0.470</td>
<td>0.470</td>
<td>0.470</td>
<td>0.470</td>
</tr>
<tr>
<td>Quantity required (m³)</td>
<td>239</td>
<td>239</td>
<td>478</td>
<td>478</td>
</tr>
<tr>
<td>Filling pressure at 15°C (bar)</td>
<td>200</td>
<td>300</td>
<td>200</td>
<td>300</td>
</tr>
<tr>
<td>Number of CYLINDERS (80 lt.)</td>
<td>15</td>
<td>10</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

---

**LPG GROUP OF COMPANIES**

**HEAD OFFICE**
Mestre Joan Comelles 107-109
28850 Espuña de Llobregat
Barcelona (Spain)
Tel.: +34 93 4802933
Fax: +34 93 4737492
e-mail: export@lpg.es
http://www.lpg.es

**LPG RUSSIA**
Moscow 117419
2-Rozhinskiy proezd, D.8,
stroyenie 4
Tel.: +7095 998 90 93
Mobile: +34 670 33 9651
e-mail: acardoso@mail.ru

**LPG FRANCE**
Z.I. Les Béthunes
13/14 Rue du Compas
Saint Ouen L’Aumône, B.P. 9142
95074 Cergy Cedex – France
Tel.: +33 1 34219388
Fax: +33 1 30373185
e-mail: lpg.france@free.fr

---

**Physical Properties**

- Chemical name: Argon
- Chemical formula: Ar
- Denomination according to ISO 14520 and NFPA 2001: IG-01
- Molecular weight: 39.9
- Boiling point at 1.013 bar: -185.9°C
- Critical temperature: -122.3°C
- Critical pressure: 49 bar
- Maximum filling pressure: 200/300 bar
- Typical design concentration for heptane: 48.8%
- Flooding factor for heptane at 20°C: 0.658 m³/m³
- Design concentration for surface fires class A: 39%
- Flooding factor for surface fires class A: 0.470 m³/m³
- NOAEL: 43%
- LOAEL: 52%
- Maximum concentration in a 5’ exposure: 43%
- Ozone depletion potential: 0
- Greenhouse effect potential: 0

---

**PRODUCT APPROVALS:**

- **VdS**
- **LPCB**
- **CNP**
- **APCI**

---

**LPG PORTUGAL**
Casais da Serra,
Zona Industrial, Lote 4
2665-305 Milharado
Portugal
Tel.: +351 21 9751322/3
Fax: +351 21 9751317
e-mail: lpg.portugal@mail.telepac.pt

---

**LPG MIDDLE EAST**
P.O. BOX 2367
JEDDAH 21436
K.S.A.
Tel.: +966 2 6637017/53
Fax: +966 2 6690741
e-mail: lpg@lpgme.com
http://www.lpgme.com

---

**LPG FIRE Ltd.**
33B Moorland Way
Nelson Park Industrial Estate
Cramlington
Northumberland NE23 1WE (UK)
Tel.: +44 1670 739966
Fax: +44 1670 739988
e-mail: help@lpgfire.co.uk

---

**LPG AMÉRICA LATINA**
Juan Benito Blanco 3301-3303
Apartamento 302
11.300 Montevideo
Uruguay
Tel.: +598 2 6227840
Fax: +598 2 6229801
e-mail: lpg.uruguay@conectate.com.uy
http://www.lpgme.com