PROINERT® IG-100 AGENT
GASEOUS SUPPRESSION SYSTEM

Product Overview
IG-100 is a colorless, odorless, electrically non-conductive gas with a density approximately the same as air. (see Physical Properties for additional information).

IG-100 is stored as pressurized gas within the cylinder assembly. It is available at storage pressures of 200 bar and 300 bar. When discharged into a protected space, IG-100 is clear and does not obscure vision. It leaves no residue and has zero ozone depleting potential and zero global warming potential.

Extinguishing Method IG-100
IG-100 extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion.

APPROVALS
- LPCB Approved
  Certification Number 654a

FEATURES & BENEFITS
- Natural gas present in the atmosphere
- Suitable for occupied areas
- No toxic or corrosive decomposition products from agent
- Colorless, odorless, compressed gas
- Stored as a gas
- Fogging does not occur when agent is discharged
- Electrically non-conductive
- No residue to clean up after discharge
- Zero ozone depleting potential
- Zero global warming potential
- Included on the U.S. EPA Significant New Alternative Policy (SNAP) rules

APPLICATIONS
- Data centres
- Computer rooms
- Telecommunications facilities
- Switchrooms
- Power generator facilities
- Flammable liquid storage rooms
- Machinery spaces
## USE & LIMITATIONS - IG-100 AGENT

**ProInert system shall be used on the following Class of Hazards:**

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
</table>
| A & C | Electrical and Electronic Hazards  
Telecommunications Facilities  
High value assets, where the associated down-time would be costly |
| B    | Flammable liquids and gases |

**ProInert systems shall “NOT” be used on fires involving the following materials:**

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
</table>
| A & C | Chemicals or mixtures of chemicals that are capable of rapid oxidation in the absence of air.  
(Examples include: Cellulose Nitrate and Gunpowder)  
Reactive metals such as Lithium, Sodium, Potassium, Magnesium, Titanium, Zirconium, Uranium, and Plutonium |
| B    | Metal hydrides such as Sodium Hydride and Lithium Aluminum Hydride  
Chemicals capable of undergoing auto-thermal decomposition.  
(Examples: Organic Peroxides and Hydrazine) |

## PHYSICAL PROPERTIES - IG-100 AGENT

- **ASHRAE Designation:** IG-100
- **Chemical Name:** N2 (Nitrogen)
- **Molecular Weight:** 28
- **Boiling Point at 760 mm Hg:** -195.8°C (-320.4°F)
- **Critical Pressure:** 3,399 kPA (492.9 psia)
- **Critical Temperature:** -146.9°C (-232.4°F)

## EXPOSURE LIMITATIONS

<table>
<thead>
<tr>
<th>Hazard Types</th>
<th>Design Concentration / Oxygen Levels</th>
<th>Maximum Human Expose Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normally Occupied</td>
<td>Up to 43% / 12% minimum</td>
<td>5 minutes</td>
</tr>
<tr>
<td>Space</td>
<td>43% to 52% / 12% to 10%</td>
<td>3 minutes</td>
</tr>
<tr>
<td>Normally Un-Occupied</td>
<td>52% to 62% / minimum 8%</td>
<td>30 seconds</td>
</tr>
<tr>
<td>Space</td>
<td>Above 62% / 8% or lower</td>
<td>0 seconds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Personnel CANNOT be exposed)</td>
</tr>
</tbody>
</table>

**NOTES:** EN 15005, ISO 14520 & NFPA 2001 does not allow Clean Agent Systems to be used in any occupiable spaces where the design concentration required is above 52% unless provided with supervised system lockout valve, pneumatic pre-discharge alarm, pneumatic time delay and warning signs. Fike does not recommend ProInert systems to be used in normally occupied spaces where the design concentration required is above 52%.

**WARNING:** The discharge of clean agent systems to extinguish a fire can result in potential hazard to personnel from the natural form of the clean agent or from the products of combustion that result from exposure of the agent to the fire or hot surfaces. Unnecessary exposure of personnel either to the natural agent or to the products of decomposition shall be avoided.