

IG-541 AGENT

DESCRIPTION

IG-541 is a colorless, odorless, electrically non-conductive gas with a density approximately the same as air. (See Physical Properties for additional information).

IG-541 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-541 is clear and does not obscure vision. It leaves no residue and has zero ozone depleting potential and zero global warming potential.

FEATURES AND BENEFITS

- Natural gases present in the atmosphere
- Suitable for occupied areas
- No toxic or corrosive decomposition products from agent
- Colorless, odorless, compressed gases
- 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
- Listing and Approvals: UL / ULC Listed & FM Approved

EXTINGUISHING METHOD – IG-541

IG-541 extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion.

USE AND LIMITATIONS – IG-541 AGENT

System shall be used on the following Class of Hazards:

- Class A & C: Electrical and Electronic Hazards
Telecommunications Facilities
High value assets, where the associated down-time would be costly
- Class B: Flammable liquids and gases

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

- 1) Chemicals or mixtures of chemicals that are capable of rapid oxidation in the absence of air. (Examples include: Cellulose Nitrate and Gunpowder)
- 2) Reactive metals such as Lithium, Sodium, Potassium, Magnesium, Titanium, Zirconium, Uranium, and Plutonium
- 3) Metal hydrides such as Sodium Hydride and Lithium Aluminum Hydride
- 4) Chemicals capable of undergoing auto-thermal decomposition. (Examples: Organic Peroxides and Hydrazine)

EXPOSURE LIMITATIONS

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

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.

PHYSICAL PROPERTIES OF IG-541

Chemical Name	N ₂ /Ar/CO ₂
Molecular Weight	34
Boiling Point at 760 mm Hg	-320.8°F (-196°C)
Critical Pressure	n/a
Critical Temperature	n/a
Relative Density compared to air	0.089 lbs/ft ³ (1.435 kg/m ³)