

IG01 EXTINGUISHANT AGENT



IG01 Inert Gas is a colorless, odorless, electrically non-conductive gas with a density approximately the same as air. (See Physical Properties for additional information).

IG01 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, it is clear and does not obscure vision. It leaves no residue and has zero ozone depleting potential and zero global warming potential.

FEATURES & BENEFITS

- Natural gas present in the atmosphere
- Suitable for occupied areas
- Non Toxic and Non Corrosive
- Colorless, odourless and compressed gas
- Stored and discharge as gas
- Fogging does not occur when agent is discharged
- Electrically non - conductive
- Leaves no residue
- Zero Ozone Depletion
- Zero Global warming
- Zero Atmospheric Life Time
- Included on the U.S. EPA Significant New Alternative Policy (SNAP) rules

EXTINGUISHING METHOD IG01

IG01 extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion.

USE AND LIMITATIONS

Inert Gas extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion.

System shall be used on the following Class of Hazards:

Class A & C : Electrical and Electronic Hazards, Telecommunication Facilities. High Value assets where the associated down time be costly

Class B : Flammable liquid and Gases

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

- Chemical or mixtures of chemical that are capable of rapid oxidation in the absence of air. (Example include: Cellulose Nitrate and Gunpowder)
- Reactive metal such as lithium, sodium, potassium, magnesium, Titanium, Zirconium, Uranium and plutonium.
- Metal Hydrides such as sodium hydride and lithium aluminum hydride.
- Chemical capable of undergoing auto-thermal decomposition (Example: Organic Peroxide and Hydrazine).

EXPOSURE LIMITATION

Hazard Type	Design Concentration/Oxygen Levels	Maximum Human Expose time
Normally Occupied Space	Up to 43% / 12% minimum	5 Min
	43% to 52% / 12% to 10%	3 Min
Normally Un-Occupied Space	52% to 62% / Minimum 8%	30 Sec
	Above 62% / 8% or lower	0 Sec (Personal 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. NAFFCO does not recommend **NAFFCOInert®** 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.

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PHYSICAL PROPERTIES OF IG-01

Chemical Name	Ar
Molecular Weight	39.9
Boiling Point at 1.013 Bar	-185.9°C
Critical Pressure	49 Bar
Critical Temperature	-122.3°C
Design Concentration for Class A Fire (NFPA)	38.7%
Flooding Factor for Class A Fire (NFPA)	0.481 m ³ / m ³
NOAEL	43%
LOAEL	53%



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In line with NAFFCO policy for continuous product development, NAFFCO has the right to change specifications without prior notice.

IG100 EXTINGUISHANT AGENT



IG100 Inert Gas is a colorless, odorless, electrically non-conductive gas with a density approximately the same as air. (See Physical Properties for additional information).

IG100 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, it is clear and does not obscure vision. It leaves no residue and has zero ozone depleting potential and zero global warming potential.

FEATURES & BENEFITS

- Natural gas present in the atmosphere
- Suitable for occupied areas
- Non Toxic and Non Corrosive
- Colorless, odourless and compressed gas
- Stored and discharge as gas
- Fogging does not occur when agent is discharged
- Electrically non - conductive
- Leaves no residue
- Zero Ozone Depletion
- Zero Global warming
- Zero Atmospheric Life Time
- Included on the U.S. EPA Significant New Alternative Policy (SNAP) rules

EXTINGUISHING METHOD IG100

IG100 extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion.

USE AND LIMITATIONS

Inert Gas extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion.

System shall be used on the following Class of Hazards:

Class A & C : Electrical and Electronic Hazards, Telecommunication Facilities. High Value assets where the associated down time be costly

Class B : Flammable liquid and Gases

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

- Chemical or mixtures of chemical that are capable of rapid oxidation in the absence of air. (Example include: Cellulose Nitrate and Gunpowder)
- Reactive metal such as lithium, sodium, potassium, magnesium, Titanium, Zirconium, Uranium and plutonium.
- Metal Hydrides such as sodium hydride and lithium aluminum hydride.
- Chemical capable of undergoing auto-thermal decomposition (Example: Organic Peroxide and Hydrazine).

EXPOSURE LIMITATION

Hazard Type	Design Concentration/Oxygen Levels	Maximum Human Expose time
Normally Occupied Space	Up to 43% / 12% minimum	5 Min
	43% to 52% / 12% to 10%	3 Min
Normally Un-Occupied Space	52% to 62% / Minimum 8%	30 Sec
	Above 62% / 8% or lower	0 Sec (Personal 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. NAFFCO does not recommend **NAFFCOInert®** 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.

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PHYSICAL PROPERTIES OF IG - 100

Chemical Name	N ₂
Molecular Weight	28
Boiling Point at 1 ATM (1.013 Bar)	-196°C
Critical Pressure	40 Bar
Critical Temperature	-146.9°C
Design Concentration for Class A Fire (NFPA)	37.2%
Flooding Factor for Class A Fire (NFPA)	0.457 m ³ / m ³
NOAEL	43%
LOAEL	53%



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IG55 EXTINGUISHANT AGENT



IG55 Inert Gas is a colorless, odorless, electrically non-conductive gas with a density approximately the same as air. (See Physical Properties for additional information).

IG55 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, it is clear and does not obscure vision. It leaves no residue and has zero ozone depleting potential and zero global warming potential.

FEATURES & BENEFITS

- Natural gas present in the atmosphere
- Suitable for occupied areas
- Non Toxic and Non Corrosive
- Colorless, odourless and compressed gas
- Stored and discharge as gas
- Fogging does not occur when agent is discharged
- Electrically non - conductive
- Leaves no residue
- Zero Ozone Depletion
- Zero Global warming
- Zero Atmospheric Life Time
- Included on the U.S. EPA Significant New Alternative Policy (SNAP) rules

EXTINGUISHING METHOD IG55

IG55 extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion.

USE AND LIMITATIONS

Inert Gas extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion.

System shall be used on the following Class of Hazards:

Class A & C : Electrical and Electronic Hazards, Telecommunication Facilities. High Value assets where the associated down time be costly

Class B : Flammable liquid and Gases

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

- Chemical or mixtures of chemical that are capable of rapid oxidation in the absence of air. (Example include: Cellulose Nitrate and Gunpowder)
- Reactive metal such as lithium, sodium, potassium, magnesium, Titanium, Zirconium, Uranium and plutonium.
- Metal Hydrides such as sodium hydride and lithium aluminum hydride.
- Chemical capable of undergoing auto-thermal decomposition (Example: Organic Peroxide and Hydrazine).

EXPOSURE LIMITATION

Hazard Type	Design Concentration/Oxygen Levels	Maximum Human Expose time
Normally Occupied Space	Up to 43% / 12% minimum	5 Min
	43% to 52% / 12% to 10%	3 Min
Normally Un-Occupied Space	52% to 62% / Minimum 8%	30 Sec
	Above 62% / 8% or lower	0 Sec (Personal 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. NAFFCO does not recommend **NAFFCOInert®** 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.

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PHYSICAL PROPERTIES OF IG - 55

Chemical Name	N ₂ /Ar
Molecular Weight	33.95
Boiling Point at 760 mm Hg	-190.1°C
Critical Pressure	602 psia
Critical Temperature	-134.7°C
Design Concentration for Class A Fire (NFPA)	37.2%
Flooding Factor for Class A Fire (NFPA)	0.457 m ³ / m ³
NOAEL	43%
LOAEL	52%



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IG541 EXTINGUISHANT AGENT



IG541 Inert Gas is a colorless, odorless, electrically non-conductive gas with a density approximately the same as air. (See Physical Properties for additional information).

IG541 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, it is clear and does not obscure vision. It leaves no residue and has zero ozone depleting potential and zero global warming potential.

FEATURES & BENEFITS

- Natural gas present in the atmosphere
- Suitable for occupied areas
- Non Toxic and Non Corrosive
- Colorless, odourless and compressed gas
- Stored and discharge as gas
- Fogging does not occur when agent is discharged
- Electrically non - conductive
- Leaves no residue
- Zero Ozone Depletion
- Zero Global warming
- Zero Atmospheric Life Time
- Included on the U.S. EPA Significant New Alternative Policy (SNAP) rules

EXTINGUISHING METHOD IG541

IG541 extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion.

USE AND LIMITATIONS

Inert Gas extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion.

System shall be used on the following Class of Hazards:

Class A & C : Electrical and Electronic Hazards, Telecommunication Facilities. High Value assets where the associated down time be costly

Class B : Flammable liquid and Gases

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

- Chemical or mixtures of chemical that are capable of rapid oxidation in the absence of air. (Example include: Cellulose Nitrate and Gunpowder)
- Reactive metal such as lithium, sodium, potassium, magnesium, Titanium, Zirconium, Uranium and plutonium.
- Metal Hydrides such as sodium hydride and lithium aluminum hydride.
- Chemical capable of undergoing auto-thermal decomposition (Example: Organic Peroxide and Hydrazine).

EXPOSURE LIMITATION

Hazard Type	Design Concentration/Oxygen Levels	Maximum Human Expose time
Normally Occupied Space	Up to 43% / 12% minimum	5 Min
	43% to 52% / 12% to 10%	3 Min
Normally Un-Occupied Space	52% to 62% / Minimum 8%	30 Sec
	Above 62% / 8% or lower	0 Sec (Personal 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. NAFFCO does not recommend **NAFFCOInert®** 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.

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PHYSICAL PROPERTIES OF IG - 541

Chemical Name	N ₂ /Ar/CO ₂
Molecular Weight	34
Boiling Point at 1 ATM (1.013 Bar)	-196°C
Critical Pressure	N/A
Critical Temperature	N/A
Design Concentration for Class A Fire (NFPA)	37.2%
Flooding Factor for Class A Fire (NFPA)	0.457 m ³ / m ³
NOAEL	43%
LOAEL	52%



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