

PROINERT®2 IG-55 CLEAN AGENT

Description

IG-55 is an odorless, colorless, electrically non-conductive gas that is present in the atmosphere. (See Physical Properties Table for additional information). It is stored as a compressed gas within the cylinder assembly at pressures of 200 bar and 300 bar (2900 psi and 4351 psi).

When discharged into a protected space, IG-55 is clear, does not obscure vision and leaves no residue.

Extinguishing Method

IG-55 extinguishes a fire by reducing the residual oxygen concentration within the protected area to a level that will no longer support combustion.

Approvals

- Underwriters Laboratories (UL)
- Underwriters Laboratories of Canada (ULC)
- Factory Mutual (FM)
- United States EPA Significant New Alternative Policy (SNAP) report

For exact certification listings, please reference the respective agency web site.

Use and Limitations

IG-55 can 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

IG-55 shall NOT be used on fires involving the following materials:

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

Exposure Limitations

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. Means shall be provided to limit exposure to no longer than 5 minutes. Unprotected personnel shall not enter the protected area during or after discharge.

The following additional exposure limitations shall apply.

Hazard Type	Design Concentration	Maximum Human Exposure Time
Normally Occupied Space	Up to 43% (12%)	5 minutes
	43% to 52% (12% to 10%)	3 minutes

IG-55 **cannot** be used in any space where the design concentration required is above 52%

This document is only intended to be a guideline and is not applicable to all situations. Information is subject to Fike's full disclaimer at <http://www.fike.com/disclaimer>.

Physical Properties

ASHRAE designation	IG-55
Chemical Name/Formula	N ₂ /Ar
Mixture	50% N ₂ , 50% Ar. H ₂ O ≤ 10ppm, O ₂ ≤ 10ppm in base components
Molecular Weight	33.95
Boiling Point at 760 mm Hg	-310.2°F (-190.1°C)
Freezing Point	-327.5°F (-199.7°C)
Critical Temperature	-210.5°F (-134.7°C)
Critical Pressure	602 psia (4,150 kPa)
Specific heat, vapor at constant pressure (1 atm) and 77°F	0.187 Btu/lb °F
Heat of vaporization at boiling point	77.8 Btu/lb. (181 kJ/kg)
Relative density compared to air	1.18
Ozone depletion potential	0
Global warming potential	0

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