INERGEN®
Extinguishing Agent

Features
INERGEN® suppressing agent used in ANSUL® engineered systems is particularly useful for hazards where an electrical, non-conductive medium is essential or desirable; where clean-up of other agents presents a problem; where hazard obstructions require the use of a gaseous agent; or where the hazard is normally occupied and requires a non-toxic agent.

The following are typical hazards protected by INERGEN systems:
- Computer rooms
- Subfloors
- Tape storage
- Telecommunications/Switchgear
- Vaults
- Process equipment
- All normally occupied or unoccupied areas where electronic equipment is either very sensitive or irreplaceable

Environmental Impact
INERGEN agent is a mixture of three naturally occurring gases: nitrogen, argon and carbon dioxide. As INERGEN agent is derived from gases present in the earth’s atmosphere, it exhibits no ozone depleting potential, does not contribute to global warming, nor does it contribute unique chemical species with extended atmospheric lifetimes. Because INERGEN agent is composed of atmospheric gases, it does not pose the problems of toxicity associated with the chemically derived Halon alternative agents.

Description
INERGEN agent is a plentiful, non-corrosive gas that does not support combustion nor react with most substances. INERGEN agent contains only naturally-occurring gases which have no impact on the ozone or the environment in general. INERGEN agent is a mixture of three inerting (oxygen diluting) gases: 52% nitrogen, 40% argon, and 8% carbon dioxide. INERGEN agent suppresses fire by lowering the oxygen content below the level that supports combustion. When INERGEN agent is discharged into a room, it introduces the proper mixture of gases that still allow a person to breathe in a reduced oxygen atmosphere. It actually enhances the body’s ability to assimilate oxygen.

The normal atmosphere in a room contains approximately 21% oxygen and less than 1% carbon dioxide. If the oxygen content is reduced below 15%, most ordinary combustibles will not burn. INERGEN agent will reduce the oxygen content to approximately 12.5% while increasing the carbon dioxide content to about 3%.

Performance
INERGEN agent is an effective fire suppressing agent that can be used on many types of fires. The INERGEN fire suppression system is designed for total flooding protection against Class A surface burning, Class B flammable liquid, and Class C fires occurring within an enclosure by lowering the oxygen content below the level that supports combustion.

INERGEN agent has been tested by FM Approvals for inerting capabilities. Those tests have shown that INERGEN agent, at design concentrations between 40% and 50%, has successfully inerted mixtures of propane/air, and methane/air.

Physical Properties of INERGEN
Specific gravity: 0.085 lb/ft³ (1.36 kg/m³)
Vapor density: 1.1 (Air = 1)
Approximate molecular weight: 34

Approval

Agent is listed and approved by Underwriters Laboratories, Inc. (UL) and Factory Mutual (FM).

Containers meet the applicable Department of Transportation (DOT) specifications.

Note: The converted values in this document are for dimensional reference only and do not reflect an actual measurement.

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