Clean Agent Fire Extinguishing Systems

These systems contain electrically nonconducting, volatile, or gaseous fire extinguishing agents that don't leave a residue upon evaporation (per NFPA 2001 paragraph 1-3.1). They are effective for total flooding protection against hazards involving liquid flammable materials, electrical equipment, and ordinary solid combustibles in occupancy arrangements which produce only surface burning. In general, these agents are not effective or appropriate for hazards which produce deep-seated burning or for those which involve chemicals containing their own oxygen (such as cellulose nitrate), metal hydrides, or reactive metals (such as sodium, magnesium or uranium).

Clean Agent systems are similar in many respects to Halon 1301 and carbon dioxide systems. Discharge of the agent by total flooding or local application may create atmospheric hazards to personnel. Toxic thermal decomposition products can be minimized by fast fire detection coupled with rapid agent discharge. Personnel should not remain in the area following system discharge. Table A-1-5.1.1 of NFPA 2001 provides information on toxicological and physiological effects covered in this equipment classification. The No Observed Adverse Effect Level (NOAEL) is the highest concentration at which no adverse physiological or toxicological effect has been observed. The Lowest Observed Adverse Effect Level (LOAEL) is the lowest concentration at which an adverse physiological or toxicological effect has been observed.

Systems can only be FM Approved under this classification if they use agents having a component Approval. The system Approvals specifically reference the relevant agent Approval. Individual agent listings appear under the category Clean Extinguishing Agents.

Compatible FM Approvals controls must be used. (See AUTOMATIC RELEASES FOR EXTINGUISHING SYSTEMS AND OTHER FIRE PROTECTION EQUIPMENT under ELECTRICAL SIGNALING.)

Application of this equipment should be subject to the limitations specified and subject to FM Global's acceptance of plans prior to installation. Required design concentrations vary from agent to agent and depending upon maximum design parameters, the concentration may vary among system manufacturers. The design concentrations listed by the system manufacturers are generally accepted in electrical/electronic hazards, i.e. computer, telecommunication areas, provided that Class A ordinary combustibles are kept to a minimum, thereby minimizing the potential for a deep seated Class A fire.

System charging and recharging shall be done only by the manufacturer or a FM Approved representative.

The Clean Agent systems FM Approved under this classification have been addressed by NFPA 2001, Standard on Clean Agent Extinguishing Systems, 1994 Edition and must be listed in the United States Environmental Protection Agency (EPA) Significant New Alternatives Policy (SNAP) as an acceptable substitute to Halon 1301.

Jurisdictions ***outside*** the United States may ***not*** recognize NFPA and EPA sanction of certain clean agents. Local and national governmental regulations should be consulted ***prior*** to agent selection.

*Alternative to Halon 1211 and Halon 1301.

ANSUL® INERGEN® 150 Bar Clean Agent Fire Extinguishing System

System Designation:	ANSUL® INERGEN® 150 Bar Clean Agent Fire Extinguishing System
System Type:	Engineered system
Agent Identification:	Inergen® (Identified as IG-541 in NFPA 2001)
Minimum and Maximum Agent Storage Temperatures:	60°F to 80°F (15°C to 27°C) for multiple hazard, unbalanced systems
	32°F to 130°F (0°C to 54°C) for single hazard, unbalanced systems and balanced systems
Types of Nozzles Available:	180°
	360°
Minimum and Maximum Nozzle Heights	8 in (0.4 m) Minimum Height
	20 ft (0.5 m) Maximum Height
Nozzle Maximum Area of Coverage:	32 ft. by 32 ft. (9.8 m. by 9.8 m.)
Minimum Design Concentration for Hazard Class:	Class A – 34.2%
	Class B – 40.7%
Design, Installation, Operation, and Maintenance Manual:	ANSUL® INERGEN® 150 bar System Design, Installation, Recharge and Maintenance Manual, 416655, Rev. 15, 2017-NOV-13

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Additional Documentation:	Bulletin No. 2015109 INERGEN Exchange Program Update June 19th, 2015 Placement Indicator Switch Inergen® HF Electric Actuator Instruction Sheet 441874, Rev 0
Approved Design Software:	System to be designed with Ansul Incorporated computer based hydraulic program, INERGEN® Designer Version 2.1.2, 2/12/04. Software Installation Instructions, F-95215
Approved Filling Facilities:	Tyco Fire Suppression & Building Products One Stanton Street Marinette, WI 54143 Ansul Fire Equipment (Shanghai) Co. Bldg 1, Lane 955, Jinhai Rd 201206, Pudong, Shanghai, China Shanghai Leinuo Industrial Gases Co., Ltd. 19 Songfu Road Qingpu Industrial Park Shanghai, China
Alternate Manufacturing Location:	Tyco Safety Products (Shanghai, Lingang) Co., Ltd District B, Building 2 88 Wansong Road, Shuyuan County, Pudong New District, Shanghai, China

Company Name:	Ansul Incorporated
Company Address:	One Stanton St, Marinette, Wisconsin 54143, USA
Company Website:	http://ansul.com
New/Updated Product Listing:	No
Listing Country:	United States of America
Agent Type:	INERGEN
Certification Type:	FM Approved

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