

Non-Branded Clean Agent Specification Example

1. Summary of work
 - A. Design, supply and install a complete clean agent total flooding fire suppression system using agent manufactured by a reputable manufacturer with a process known as electrochemical fluorination. (Hereafter referred to as SYSTEM)
2. Clean Agent Fire Suppression Fluid
 - A. Agent shall be manufactured at an ISO 9001 and ISO 14001 registered facility.
 - B. Clean Agent Fluid shall have an Ozone Depletion Potential (ODP) of zero.
 - C. Clean Agent Fluid shall have a Global Warming Potential (GWP) of < 1 (100 year ITH). GWP as defined by the Intergovernmental Panel on Climate Change Fifth Assessment Report (IPCC AR5).
 - D. Agents will not be restricted for use in fire protection due to its Ozone Depletion Potential (ODP) or Global Warming Potential (GWP) and is not targeted for phase-down by the Montreal Protocol, nor subject to the European F-Gas Regulations targeting the phase-down of production and import of HFCs into Europe.
 - E. Clean Agent must have a minimum safety factor 60% between the design concentration percentage and the No Observed Adverse Effect Level (NOAEL) for Class A and C hazards. For guidance on safety factors for Class B hazards, contact an approved Original Equipment Manufacturer.
 - F. The minimum extinguishing concentration (MEC) determined by test as witnessed per recognized testing laboratory standards (i.e UL 2166, FM 5600) shall be no greater than 3.3%.
 - G. The clean extinguishing agent shall have *Component Recognition* per either LPCB 1230, VdS 2344, CNPP or UL 2166 Halocarbon Clean Agent Extinguishing System Units and *Certificate Type Approval* per IMO MSC/Circ. 848 on Revised Guidelines for the Approval of Fixed Gas Fire-Extinguishing Systems. The agent shall have minimum extinguishing concentrations for class A and Class B fuels using the methods detailed in ISO 14520 (Standard covering Gaseous Fire-extinguishing Systems) and UL 2166.
 - H. The clean extinguishing agent shall be included in the ISO 15004 and NFPA 2001.
 - I. The clean extinguishing agent shall have a 20-year protection, valid globally, against regulatory bans or restrictions in use on the global warming potential, ozone depletion and atmospheric lifetime of the agent
 - J. The entity offering the certified and approved system using genuine clean extinguishing agent shall be able to demonstrate their relation to the genuine clean extinguishing agent manufacturer and their approved OEM partner.
 - K. System cylinders shall be labeled indicating the system manufacturer and agent brand. System service and refill shall be by an authorised manufacturer's representative and shall be the agent of the original installation brand.

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- L. The system shall be certified by the fire suppression system manufacturer to have a noise level during agent discharge not to exceed 110 dB, from 0.5 to 5.0 kHz, for longer than 20 seconds, at a distance of one metre from the gas discharge nozzle. The manufacturer shall supply certified testing documentation with measured noise levels recorded by the LZF max per 1/3 octave band centre frequency, or other approved method.

Safety Data Sheet: Consult Safety Data Sheet before use.

Regulatory: For regulatory information about this product, contact your 3M representative.

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