



TECHNICAL DATA

VK-200 EXTINGUISHING FLUID

The technical data described herein is for components of the Viking VK-200. For design, installation, and operation instructions, refer to the latest edition of VK-200 original source documents: Installation and Service Manual (Part No. 17213), Design Manual (Part No. 17211), and Operation Manual (Part No. 17212).

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1. DESCRIPTION

The Viking VK-200 Fire Extinguishing System uses HFC-227ea fluid, which is a zero ozone depleting replacement for Halon 1301 for use as a gaseous fire suppression agent. It generally finds use in data processing, clean rooms, museums, and telecommunication facilities, protecting expensive equipment or contents. HFC-227ea fluid is a colorless, odorless, non-toxic fire suppression agent, which has zero ozone depletion, low global warming, and a short atmospheric lifetime. Extinguishment is by a combination of chemical and physical mechanisms, causing an interruption in the fire chemistry.

2. LISTINGS AND APPROVALS



UL Listed: For the Clean Agent Fire Extinguishing System



FM Approved: For the Clean Agent Fire Extinguishing System

3. TECHNICAL DATA

Available since 2011.

Specifications

Minimum and Maximum Fluid Storage Temperatures: 0 °F to 122 °F (-18 °C to 50 °C)

Minimum and Maximum Temperatures of Protected Spaces per UL and FM: 60 °F to 80 °F (15.6 °C to 26.7 °C)

Chemical Formula: C₃HF₇

Chemical Name: 1,1,1,2,3,3,3-Heptafluoropropane

Molecular Weight: 170.03

ISO Designation: HFC-227ea

Density, Liquid @ 77 °F (25 °C): 86.53 lb/ft³ (1.386 g / cm³)

Melting Point: -204 °F (-131 °C)

Boiling Point: 2.5 °F (-16.4 °C)

Viscosity, Liquid @ 77 °F (25 °C): 0.443 lb/ft/hr (0.184 centipoise)

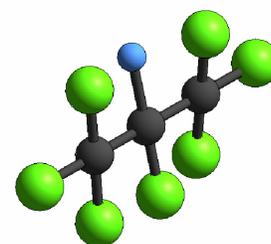
Heat of Vaporization @ BP: 57.0 BTU / lb (132.6 kJ / kg)

Vapor Pressure @ 77 °F (25 °C): 65.7 psi (4.53 bar)

Environmental Properties: No ozone depletion potential (ODP 0)

Low global warming potential (GWP 3500)

Atmospheric Lifetime 31-42 years



**Figure 1: HFC-227ea
Agent Molecule**

Viking Technical Data may be found on
The Viking Corporation's Web site at
<http://www.vikinggroupinc.com>.
The Web site may include a more recent
edition of this Technical Data Page.



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4. INSTALLATION

 **WARNING**

The VK-200 Fire Extinguishing System must be installed, serviced, and maintained in accordance with the Installation and Service Manual, Design Manual, and Operation Manual (part numbers 17213, 17211, and 17212) and NFPA 2001: Standard on Clean Agent Fire Extinguishing Systems and applicable NFPA standards. In addition, the Authority Having Jurisdiction may have additional maintenance, testing and inspection requirements that must be followed.

Failure to follow these instructions could cause improper system operation, resulting in serious personal injury and/or property damage.

NOTICE: The building owner is responsible for maintaining the fire extinguishing system and devices in proper operating condition. Any system maintenance or testing that involves placing a detection system out of service may eliminate the fire protection of that system. Prior to proceeding, notify all Authorities Having Jurisdiction. Consideration should be given to employment of a fire patrol in the affected area.

5. OPERATION

Refer to the VK-200 Fire Extinguishing System Operation Manual.

6. AVAILABILITY

VK-200 Extinguishing System is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

7. GUARANTEE

For details of warranty, refer to Viking's current list price schedule or contact Viking directly.