



## TECHNICAL DATA

## VSH1230 EXTINGUISHING AGENT

The Viking Corporation | 210 N Industrial Park Drive | Hastings MI 49058

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The technical data described herein is for components of the Viking VSH1230 Clean Agent Systems.

For design, installation, and operation instructions, refer to the latest edition of the original source documents as outlined below.

VSH1230: Installation and Service Manual (Part No. 932159), Design Manual (Part No. 932157), and Operation Manual (Part No. 932161).

Visit the Viking website for the latest edition of the technical manuals listed above.

### 1. DESCRIPTION

The Viking VSH1230 Fire Extinguishing System uses 3M™ Novec™ 1230 fluid, which is a next generation alternative for Halon replacement. VSH1230 is used to protect the contents of an area that contains valuable equipment or materials, including, but not limited to Museums, Banks, Clean Rooms, Data Centers, and Libraries. Novec™ 1230 leaves no residue behind, has zero ozone depletion, and has the lowest atmospheric lifetime for halocarbon alternatives. Novec™ 1230 extinguishes the fire by heat absorption. VSH1230 results in less down time, less clean up, limited business interruption, and it is environmentally friendly.

### 2. LISTINGS AND APPROVALS



**UL Listed:** For the Clean Agent Fire Extinguishing System



**FM Approved:** For the Clean Agent Fire Extinguishing System



**WARNING:** Cancer and Reproductive Harm  
www.P65Warnings.ca.gov

### 3. TECHNICAL DATA

#### 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: CF<sub>3</sub>CF<sub>2</sub>C(O)CF(CF<sub>3</sub>)<sub>2</sub>

Chemical Name: Dodecafluoro-2-methyl-pentane-3-one

Molecular Weight: 316.04

ISO Designation: FK-5-1-12

Specific Weight 68°F (20°C): 3.04 lbs / gal (1.41 kg / l)

Density, Saturated Liquid @ 77°F / 4.69 psi (@ 25°C / 1.013 bar): 99.9 kbm / ft<sup>2</sup> (1.60 g / ml)

Density, Gas 1 ATM @ 77°F / 4.69 psi (@ 25°C / 1.013 bar): 0.852 lbm / ft<sup>3</sup> (0.0136 g / ml)

Freezing Point: -162.4°F (-108°C)

Boiling Point: 120.5°F at 14.69 psi (49.2°C at 1.013 bar)

Specific Volume, 1 ATM @ 77°F / 4.69 psi (@ 25°C / 1.013 bar): 1.17 ft<sup>3</sup> / lb (0.0733 m<sup>3</sup> / kg)

Liquid Viscosity @ 77°F / 4.69 psi (@ 25°C / 1.013 bar): 0.56 (0.41 centistokes)

Heat of Vaporization @ BP: 37.9 BTU / lb (88.1 kJ / kg)

Solubility of H<sub>2</sub>O in Novec™ 1230 @ 77°F / 4.69 psi (@ 25°C / 1.013 bar): <0.001% by wt.

Vapor Pressure @ 77°F / 4.69 psi (@ 25°C / 1.013 bar): 5.87 psig (0.40 bar)

Dielectric Strength (rel to N<sub>2</sub> at 1 ATM): 2.3

Environmental Properties: No ozone depletion potential (ODP 0)

Low global warming potential (GWP 1)

Atmospheric Lifetime <5 days

#### Ordering Information

3M™ Novec™ 1230 agent Part Number: 88 8054

