

## Phasing Out of Halon: MM 200 and then Novec 1230

Properties	3M <sup>TM</sup> Novec <sup>TM</sup> 1230 Fire Protection Fluid	Chemours FM-200® (HFC-227ea)
Fire Performance Vs. Health and Extinguishment Safety (NOAEL)	Class A, B & C <sup>3</sup>  Class A: 4.5%-NOAEL 10%   Safety Margin 122%  Class B: 5.9%-NOAEL 10%   Safety Margin 70%  Class C: 4.5%-NOAEL 10%   Safety Margin 122%	Class A, B & C <sup>3</sup>  Class A: 6.7%-NOAEL 9%   Safety Margin 34%  Class B: 8.7%-NOAEL 9%   Safety Margin 3%  Class C: 7.0%-NOAEL 9%   Safety Margin 29%
ODP – Ozone Depletion Potential <sup>1</sup>	0	0
GWP – Global Warming Potential <sup>2</sup>	<1	3,350
Atmospheric Lifetime – Years	0.019	38.9
Global Environmental Warranty on Agent (Years)	Yes  3M <sup>TM</sup> Blue Sky <sup>TM</sup> Warranty (20 Years)	None
Subject to Phase – Down under EU F-Gas Regulation	No	Yes
Subject to U.S. Proposals for Global Phase-Down under Montreal Protocol	No	Yes
Subject to Potential U.S. EPA SNAP Status Change Proposals Directed at HFCs	No	Yes
Manufacturer Advocating for Global HFC Phase – Dows	Yes	Yes
<sup>1</sup> World Meteorological Organization (WMO) 1998, Model-Derived Method <sup>2</sup> Intergovernmental Panel on Climate Change (IPCC) 2013 Method, 100-Year 1TH <sup>3</sup> NFPA 2001		