

		Halon 1211	<i>Ref.</i>	Halotron® I	<i>Ref.</i>	FE-36™	<i>Ref.</i>
Chemical Formula		CBrClF ₂	3	C ₂ HCl ₂ F ₃ (HCFC-123) + gas blend	---	CF ₃ CH ₂ CF ₃ (HFC-236fa)	--
US EPA SNAP Streaming Approval/EPA Designation		N/A	---	Yes/ HCFC Blend B	2	Yes/ HFC-236fa	2
US EPA SNAP Approved Subject to Narrowed Use Limits		N/A	---	No	2	Yes	2
Ozone Depletion Potential (ODP), higher number, worse effect	CFC-11 = 1	7.9	5	0.0098	10	0	5
Global Warming Potential (GWP) Category		High	12	Low	12	Very High	11,12
GWP Value, higher number, worse effect	100 year CO₂ ITH	1,890	5	77 ¹	5	9,820	5
Discharge Testing and Training Discouraged by US EPA		Yes		No	2		2
US FAA Approved for Airport Fire Fighting		Yes	---	Yes	8	No	---
US FAA Approved for Onboard Aircraft Fire Fighting		Yes	---	Yes	7	Yes	7
Number of US Airports with 460-500 lb. Systems Installed on ARFF Vehicles		Historically high, but now estimated to be less than 10	---	More than 100	---	0 – not FAA approved for this use	---
Number of UL Listed Extinguishers		28	7	36	7	5	7
UL Listed Wheeled Units, 4A:40B:C and Higher		Yes	---	Yes	7	No	7
US Coast Guard Approved Extinguishers		Yes	---	Yes	7	Yes	7
Molecular Weight		165.4	3	150.7	---	152.0	4
Boiling Point @ 1 atm	°F (°C)	26.0 (-3.4)	3	80.6 (27)	---	29.3 (-1.5)	4
Liquid Density	lb./ft ³ (kg/l)	113.4 @ 70°F (1.83 @ 20°C)	3	92.30 @ 77°F (1.48 @ 25°C)	---	84.89 @ 77°F (1.36 @ 25°C)	4
Vapor Pressure	psia (kPa)	43 @ 77°F (296 @ 25°C)	3	109.7 @ 77°F (756 @ 25°C)	---	39.51 @ 77°F (272 @ 25°C)	4
Cup Burner Extinguishing Conc., Heptane fuel	vol. %	3.2	9	6.5	9	5.3	4
No Observed Adverse Effect Level, Cardiotox	vol. %	0.5	6	1.0	6	10.0	1
Lowest Observed Adverse Effect Level, Cardiotox	vol. %	1.0	6	2.0	6	15.0	1

[1] This value is based on the primary raw material, HCFC-123. The Halotron I blend contains a small percentage of a PFC.

REFERENCES

1.	DuPont Fire Extinguishants News, Vol. 4, No. 1 H-60871 5/95
2.	US EPA "Substitutes for Halon 1211 as a Streaming Agent," http://www.epa.gov/ozone/snap/fire/stream.html (last updated March 18, 2014)
3.	NFPA 12B 1990 Edition
4.	DuPont "The DuPont Extinguishants All-Star Team" H-60867-1
5.	Scientific Assessment of Ozone Depletion:2010, World Meteorological Organization, Global Ozone Research and Monitoring Project, Report No. 52
6.	US EPA
7.	UL Fire Protection Equipment Online Certifications Directory (Listings in effect as of July 29, 2014)
8.	US Federal Aviation Administration (FAA) CertAlert 95-03
9.	New Mexico Engineering Research Institute
10.	Wuebbles et al., <i>Three-Dimensional Modeling of HCFC-123 in the Atmosphere: Assessing Its Potential Environmental Impacts and Rationale for Continued Use</i> , Environmental Science & Technology, 2009, 43 (9), 3208-3213
11.	US EPA, March 10, 1997, FR Vol 62, No 98, pg 10702
12.	UNEP Technology and Economic Assessment Panel (TEAP), 2010 Progress Report, Section 2.4

NOTE: All of the data presented above is based on best available information and is subject to change without notice.