



Solvent Properties

Better Chemistry. Better Business.

	TCE	PCE	MCL	NPB (Hubtron PB)	Hubtron CF	Hubtron HDS	Hubton CCA	Hubtron CMS	HCFC 225 (AK 225)	HFC 4310 (Vertrel XF)	Novac 7100	Novac 7200
Physical Properties												
Boiling Point (F)	188.0	250.0	104.0	158.0	113.0	106.0	99.0	98.0	129.0	131.0	142.0	172.0
Heat of Vaporization (cal/g @ BP)	56.4	50.1	78.9	58.8	65.0	85.0	85.0	96.0	35.0	31.0	30.0	30.0
Surface Tension (dynes/cm @25 C)	26.4	31.8	28.2	25.9	15.9	18.8	18.8	19.2	16.2	14.1	14.0	14.0
Specific gravity @ 25 C	1.46	1.62	1.32	1.35	1.44	1.34	1.35	1.33	1.55	1.58	1.52	1.43
Freeze point (F)	-124.0	-9.0	-139.0	-267.0	-6.0	-31.0	-31.0	-17.0	-204.0	-112.0	-211.0	<-211
Kauri-Butanol Value	129.0	90.0	136.0	125.0	10 to 15^	45 to 50^	25 to 30^	30 to 35^	31.0	9.0	10.0	10.0
Flash point (Closed Cup)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flammable Limits @25 C (vol % in air)												
Lower limit (LEL)	8.0	none	14.0	4.0	7.0	7.5	7.5	6.25	none	none	none	0.002
Upper Limit (UEL)	9.2	none	22.0	8.0	8.0	9.0	9.0	14.0	none	none	none	0.01
Regulatory & Environmental												
Ozone Depletion Potential (ODP)	0.0	0.0	0.0	0.026	0	0	0	0	0.03	0.0	0.0	0.0
Global Warming Potential (GWP)	0.0	0.0	0.0	0.31	1300/890	1300/890	1300/890	1300/890	170/530	1300	480	90
Atmospheric Lifetime	0.02	0.5	0.5	0.03	not tested	not tested	not tested	not tested	2.5/6.6	17.1	4.1	0.8
Exposure Guidelines ACGIH (TLV) ppm	10	25	50	10	200	200	200	200	50	200	750	200
OSHA (time weighted average) ppm	100	100	25	NE	NE	NE	NE	NE	NE	NE	NE	NE
Volatile Organic Compound (VOC)	Yes	No	No	Yes	No	Yes	Yes	Yes	No	No	No	No
Hazardous Air Pollutant (HAPS)	Yes	Yes	Yes	No	No	No	No	Yes**	No	No	No	No
Significant New Alternatives Policy SNAP approved	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NE = Not established by OSHA

*NPB not SNAP approved for aerosol or adhesive applications

**3.5% methanol content

^ Estimated

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