

COMPOSITION OF GAS AND VAPOR PHASES OF CIGARETTE SMOKE

	Surgeon General's Report-pp 60 Mole %	Hobbs' Report Anal.Chem. Vol 28,1956 Mole %	Literature Survey by Peabody Mole %		Report by E. S. Harlow, 1959*		
					Mole %	mg/puff	p.p.m. w/w
Nitrogen	73				68.6	27.3	595,000
Oxygen	10				12.5	5.6	12,200
Carbon dioxide	9.5	8.7	9.5		8.7	5.47	11,900
Carbon monoxide	4.2	4.2	3.0		4.2	1.69	3,680
Hydrogen	1.				1.6	0.046	1,000
Argon	0.6				0.8	0.46	1,000
Methane	0.6		0.7		0.7	0.15	3,300
	<u>P.P.M.</u>	<u>P.P.M. v/v</u>	<u>P.P.M. v/v</u>	<u>mg/puff</u>	<u>P.P.M. v/v</u>	<u>mg/puff</u>	<u>P.P.M. w/w</u>
Carbon monoxide	42,000	42,000	30,000	1.2	42,000	1.69	3,680
Carbon dioxide	92,000	87,000	95,000	6.	87,000	5.47	11,900
Methane)		6,400)	6,600)	0.15	6,600)	0.15	3,270)
Ethane )	87,000	12) 6932	1,100) 8240	0.044	1,200) 8330	0.051	1,110) 5122
Propane)		470)	480)	0.03	480)	0.030	655)
Butane )		50)	60)	0.005	50)	0.004	87)
Acetylene)		110)	130)	0.005	104)	0.004	87)
Ethylene )	31,000	680) 1910	750) 1830	0.03	700) 1654	0.028	610) 2330
Propylene)		200)	330)	0.02	200)	0.012	261)
Isoprene )		920)	620)	0.06	650)	0.063	1,372)
Formaldehyde	30	-	47	0.002	-	-	-
Acetaldehyde	3,200	2,830	2,100	0.13	1,160	0.073	1,590
Acrolein	150	-	87	0.007	87	0.007	152
Methanol	700	250	830	0.04	200	0.009	196
Acetone	1,100	410	1,200	0.01	470	0.039	850
Methyl ethyl ketone	500	50	580	0.06	87	0.009	196
Ammonia	300	-	410	0.01	-	-	-
Nitrogen dioxide	250	-	170-210	-	-	-	-
Methyl nitrite	200	-	170	0.015	180	0.0158	344
Hydrogen sulfide	40	-	25	0.0012	-	-	-
Hydrogen cyanide	1,600	1,120	1,560	0.06	1,140	0.044	959
Methyl chloride	1,200	930	1,000	0.072	940	0.068	1,480

\* Total weight 459.023 mg/cigt. 10 puffs. 32 ml. STP puff. → See: Smoke Composition - See