

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
AP	-60.2100	1.9500	.8200	.0070	.4205
HTPB	1.2000	.9220	.1800	.0018	.1952

GRAM ATOMS/100 GRAMS

H	4.6522	O	2.8109	N	.6979	CL	.6979	C	1.3170
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ENTHALPY = -41.80672 DENSITY = 1.624
 CSTAR = 4970.07

	CHAMBER	THR (SHIFT)	EXH (SHIFT)
PRESSURE (PSIA)	1000.000	558.488	14.700
EPSILON	.000	1.000	8.124
ISP	.000	106.115	243.056
ISP (VACUUM)	.000	192.389	261.506
TEMPERATURE (K)	2703.293	2436.256	1194.799
MOLECULAR WEIGHT	22.966	23.007	23.036
MOLES GAS/100G	4.354	4.346	4.341
CF	.000	.687	1.573
PEAE/M (SECONDS)	.000	86.274	18.449
GAMMA	1.238	1.241	1.280
HEAT CAP (CAL)	45.008	44.407	39.422
ENTROPY (CAL)	250.005	250.005	250.005
ENTHALPY (KCAL)	-41.807	-54.742	-109.672
DENSITY (G/CC)	7.04509E-03	4.37361E-03	2.35028E-04
ITERATIONS	11	3	5

GRAMS/100 GRAMS

H	.01250	.00554	.00000
H2	1.49125	1.52294	2.04432
HO	.08641	.02773	.00000
HO2	.00001	.00000	.00000
H2O	20.85101	20.63450	16.23360
H2O2	.00001	.00000	.00000
O	.00085	.00012	.00000
O2	.00117	.00017	.00000
HNO	.00001	.00000	.00000
H2N	.00005	.00002	.00000
H3N	.00091	.00068	.00046
NO	.00870	.00212	.00000
N2	9.76614	9.76950	9.77073
CL2	.00241	.00094	.00000
CL	.28001	.12499	.00001
CLH	24.83441	24.99612	25.12566
CLHO	.00048	.00013	.00000
CLO	.00010	.00001	.00000
HCOOH	.00038	.00021	.00001
CCLO	.00122	.00044	.00000
CHN	.00024	.00014	.00001
CHNO	.00009	.00005	.00000
CHO	.00062	.00022	.00000
CH2O	.00021	.00012	.00001
CH4	.00000	.00000	.00034

CO
CO2

28.49628
11.24543

28.04481
11.96643

21.00566
23.17622