

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
AP	-60.2100	1.9500	.7200	.0061	.3692
HTPB	1.2000	.9220	.1800	.0018	.1952
TI	.0000	4.7000	.1000	.0021	.0213

GRAM ATOMS/100 GRAMS

H	4.3118	O	2.4704	N	.6128	CL	.6128	C	1.3170	TI	.2088
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ENTHALPY = -36.68199 DENSITY = 1.707
 CSTAR = 4878.83

	CHAMBER	THR (SHIFT)	EXH (SHIFT)
PRESSURE (PSIA)	1000.000	561.529	14.700
EPSILON	.000	1.000	8.564
ISP	.000	103.516	242.321
ISP (VACUUM)	.000	188.668	261.413
TEMPERATURE (K)	2751.493	2491.552	1309.679
MOLECULAR WEIGHT	24.394	24.438	24.476
MOLES GAS/100G	4.099	4.092	4.086
CF	.000	.683	1.598
PEAE/M (SECONDS)	.000	85.152	19.092
GAMMA	1.227	1.229	1.264
HEAT CAP (CAL)	44.114	43.625	38.840
ENTROPY (CAL)	236.463	236.462	236.463
ENTHALPY (KCAL)	-36.682	-48.992	-104.138
DENSITY (G/CC)	7.35184E-03	4.56726E-03	2.27809E-04
ITERATIONS	11	3	14

GRAMS/100 GRAMS

H	.01810	.00854	.00000
H2	2.32420	2.34489	2.68492
HO	.04663	.01646	.00000
H2O	11.56312	11.45434	8.61833
O	.00042	.00007	.00000
O2	.00021	.00004	.00000
HN	.00001	.00000	.00000
HNO	.00001	.00000	.00000
H2N	.00008	.00003	.00000
H3N	.00170	.00123	.00044
NO	.00368	.00101	.00000
N2	8.57584	8.57770	8.57915
CL2	.00138	.00058	.00000
CL	.22767	.10935	.00004
CLH	21.80906	21.94212	22.06156
CLHO	.00019	.00005	.00000
CLO	.00003	.00001	.00000
HCOOH	.00026	.00014	.00000
CCLO	.00114	.00043	.00000
CHN	.00096	.00055	.00002
CHNO	.00013	.00007	.00000
CHO	.00103	.00038	.00000
CH2O	.00039	.00023	.00001
CH4	.00001	.00001	.00027

CO	32.71883	32.49728	29.37650
CO2	4.51814	4.87403	9.84516
OTI	.00046	.00005	.00000
O2TI	.00425	.00080	.00000
CLOTI	.00064	.00014	.00000
CLTI	.00006	.00001	.00000
CL2OTI	.01819	.00731	.00000
CL2TI	.00226	.00072	.00000
CL3TI	.00707	.00425	.00000
CL4TI	.00070	.00055	.00001
O7TI4 (L)	15.74254	15.75494	.00000
O2TI (RUTILE)	.00000	.00000	16.28392