

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
N2O	18.6500	.7220	.9000	.0204	1.2465
ETHANE L	-23.7500	.5700	.1000	.0033	.1754

GRAM ATOMS/100 GRAMS

H 1.9953 O 2.0449 N 4.0897 C .6651

ENTHALPY = 30.23845 DENSITY = .703

CSTAR = 5332.56

	CHAMBER	THR(SHIFT)	EXH(SHIFT)
PRESSURE (PSIA)	1000.000	574.391	14.700
EPSILON	.000	1.000	8.933
ISP	.000	109.580	267.055
ISP (VACUUM)	.000	204.783	288.819
TEMPERATURE(K)	3357.808	3155.813	1813.112
MOLECULAR WEIGHT	25.869	26.153	26.970
MOLES GAS/100G	3.866	3.824	3.708
CF	.000	.661	1.611
PEAE/M (SECONDS)	.000	95.203	21.764
GAMMA	1.238	1.237	1.246
HEAT CAP (CAL)	39.893	39.723	37.380
ENTROPY (CAL)	236.422	236.422	236.423
ENTHALPY (KCAL)	30.239	16.444	-51.690
DENSITY (G/CC)	6.38865E-03	3.94740E-03	1.81325E-04
ITERATIONS	10	3	12

GRAMS/100 GRAMS

H	.03472	.02511	.00023
H2	.24072	.21030	.18709
HO	1.62681	1.22751	.00252
HO2	.00658	.00359	.00000
H2O	13.75229	14.30586	15.36676
H2O2	.00063	.00035	.00000
O	.25673	.16340	.00000
O2	1.40629	1.07475	.00004
HN	.00011	.00005	.00000
HNO	.00114	.00057	.00000
HNO2	.00020	.00010	.00000
HNO2	.00018	.00009	.00000
H2N	.00010	.00004	.00000
H3N	.00010	.00006	.00001
N	.00051	.00022	.00000
NO	1.57640	1.12426	.00053
NO2	.00192	.00104	.00000
N2	56.49274	56.71243	57.25580
N2O	.00081	.00044	.00000
HCOOH	.00010	.00005	.00000
CHN	.00002	.00001	.00000
CHNO	.00004	.00002	.00000
CHO	.00034	.00015	.00000
CH2O	.00001	.00001	.00000
CNO	.00001	.00000	.00000
CO	9.68696	8.71878	5.11562
CO2	13.17184	14.71427	20.45267