

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
CH3NO2	-27.0300	1.1290	1.0000	.0164	.8857

GRAM ATOMS/100 GRAMS

H	4.9148	O	3.2765	N	1.6383	C	1.6383
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ENTHALPY = -44.28201      DENSITY =1.129  
 CSTAR = 5023.15

	CHAMBER	THR(SHIFT)	EXH(SHIFT)
PRESSURE (PSIA)	300.000	167.059	14.700
EPSILON	.000	1.000	3.459
ISP	.000	107.703	218.644
ISP (VACUUM)	.000	194.645	245.107
TEMPERATURE(K)	2457.990	2202.683	1361.689
MOLECULAR WEIGHT	20.319	20.337	20.347
MOLES GAS/100G	4.921	4.917	4.915
CF	.000	.690	1.400
PEAE/M (SECONDS)	.000	86.942	26.463
GAMMA	1.243	1.247	1.274
HEAT CAP (CAL)	50.029	49.280	45.428
ENTROPY (CAL)	285.131	285.132	285.131
ENTHALPY (KCAL)	-44.282	-57.607	-99.199
DENSITY (G/CC)	2.05652E-03	1.27908E-03	1.82147E-04
ITERATIONS	11	3	4

GRAMS/100 GRAMS

H	.01065	.00396	.00001
H2	2.19007	2.24125	2.62917
HO	.04252	.01080	.00000
H2O	23.04554	22.68447	19.42712
O	.00025	.00002	.00000
O2	.00027	.00003	.00000
H2N	.00002	.00001	.00000
H3N	.00083	.00065	.00034
NO	.00425	.00079	.00000
N2	22.93279	22.93460	22.93524
HCOOH	.00015	.00008	.00001
CHN	.00020	.00012	.00001
CHNO	.00005	.00003	.00000
CHO	.00025	.00008	.00000
CH2O	.00011	.00006	.00001
CH4	.00000	.00000	.00004
CO	36.67802	36.04721	30.85474
CO2	12.03189	13.03618	21.30576

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
CH3NO2	-27.0300	1.1290	1.0000	.0164	.8857

GRAM ATOMS/100 GRAMS

H	4.9148	O	3.2765	N	1.6383	C	1.6383
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ENTHALPY = -44.28201      DENSITY =1.129  
 CSTAR = 5022.87

	CHAMBER	THR(SHIFT)	EXH(SHIFT)
PRESSURE (PSIA)	400.000	222.585	14.700
EPSILON	.000	1.000	4.214
ISP	.000	107.795	225.935
ISP (VACUUM)	.000	194.669	250.113
TEMPERATURE(K)	2459.917	2202.991	1285.625
MOLECULAR WEIGHT	20.322	20.339	20.347
MOLES GAS/100G	4.921	4.917	4.915
CF	.000	.690	1.447
PEAE/M (SECONDS)	.000	86.875	24.179
GAMMA	1.243	1.247	1.277
HEAT CAP (CAL)	50.033	49.281	44.979
ENTROPY (CAL)	282.318	282.318	282.318
ENTHALPY (KCAL)	-44.281	-57.629	-102.922
DENSITY (G/CC)	2.74031E-03	1.70408E-03	1.92924E-04
ITERATIONS	4	3	4

GRAMS/100 GRAMS

H	.00931	.00344	.00000
H2	2.19072	2.24155	2.70321
HO	.03724	.00938	.00000
H2O	23.05471	22.68678	18.79759
O	.00019	.00002	.00000
O2	.00020	.00002	.00000
H2N	.00003	.00001	.00000
H3N	.00049	.00087	.00040
NO	.00373	.00068	.00000
N2	22.93331	22.93450	22.93521
HCOOH	.00019	.00011	.00001
CHN	.00027	.00015	.00001
CHNO	.00007	.00004	.00000
CHO	.00029	.00009	.00000
CH2O	.00014	.00008	.00001
CH4	.00000	.00000	.00015
CO	36.68262	36.04876	29.85481
CO2	12.02393	13.03387	22.89804

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
CH3NO2	-27.0300	1.1290	1.0000	.0164	.8857

GRAM ATOMS/100 GRAMS

H	4.9148	O	3.2765	N	1.6383	C	1.6383
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ENTHALPY = -44.28201      DENSITY =1.129  
 CSTAR = 5022.25

	CHAMBER	THR(SHIFT)	EXH(SHIFT)
PRESSURE (PSIA)	500.000	278.531	14.700
EPSILON	.000	1.000	4.926
ISP	.000	107.723	231.160
ISP (VACUUM)	.000	194.681	253.765
TEMPERATURE(K)	2461.268	2203.736	1229.766
MOLECULAR WEIGHT	20.325	20.340	20.347
MOLES GAS/100G	4.920	4.917	4.915
CF	.000	.690	1.481
PEAE/M (SECONDS)	.000	86.957	22.605
GAMMA	1.243	1.247	1.280
HEAT CAP (CAL)	50.036	49.283	44.675
ENTROPY (CAL)	280.135	280.135	280.135
ENTHALPY (KCAL)	-44.282	-57.613	-105.667
DENSITY (G/CC)	3.42397E-03	2.13178E-03	2.01689E-04
ITERATIONS	5	3	5

GRAMS/100 GRAMS

H	.00837	.00309	.00000
H2	2.19102	2.24160	2.76555
HO	.03357	.00843	.00000
H2O	23.06097	22.68965	18.26643
O	.00016	.00001	.00000
O2	.00017	.00002	.00000
H2N	.00003	.00001	.00000
H3N	.00104	.00108	.00074
NO	.00337	.00061	.00000
N2	22.93289	22.93432	22.93489
HCOOH	.00024	.00014	.00001
CHN	.00034	.00019	.00002
CHNO	.00009	.00005	.00000
CHO	.00033	.00010	.00000
CH2O	.00018	.00010	.00001
CH4	.00000	.00000	.00041
CO	36.68539	36.05123	29.00953
CO2	12.01893	13.02995	24.24340

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
CH3NO2	-27.0300	1.1290	1.0000	.0164	.8857

GRAM ATOMS/100 GRAMS

H	4.9148	O	3.2765	N	1.6383	C	1.6383
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ENTHALPY = -44.28201      DENSITY =1.129  
 CSTAR = 5027.35

	CHAMBER	THR(SHIFT)	EXH(SHIFT)
PRESSURE (PSIA)	1000.000	573.015	14.700
EPSILON	.000	1.000	8.097
ISP	.000	105.236	245.387
ISP (VACUUM)	.000	194.775	263.985
TEMPERATURE(K)	2464.773	2216.992	1074.432
MOLECULAR WEIGHT	20.332	20.342	20.354
MOLES GAS/100G	4.918	4.916	4.913
CF	.000	.673	1.570
PEAE/M (SECONDS)	.000	89.539	18.598
GAMMA	1.243	1.247	1.288
HEAT CAP (CAL)	50.044	49.324	43.671
ENTROPY (CAL)	273.361	273.361	273.360
ENTHALPY (KCAL)	-44.282	-57.005	-113.456
DENSITY (G/CC)	6.84054E-03	4.35991E-03	2.30927E-04
ITERATIONS	5	3	9

GRAMS/100 GRAMS

H	.00602	.00232	.00000
H2	2.19169	2.23911	2.98155
HO	.02423	.00647	.00000
H2O	23.07714	22.71636	16.40138
O	.00008	.00001	.00000
O2	.00009	.00001	.00000
H2N	.00005	.00001	.00000
H3N	.00276	.00219	.00213
NO	.00181	.00048	.00000
N2	22.93209	22.93333	22.93377
HCOOH	.00049	.00028	.00001
CHN	.00065	.00040	.00002
CHNO	.00018	.00010	.00000
CHO	.00047	.00015	.00000
CH2O	.00036	.00021	.00001
CH4	.00001	.00002	.01306
CO	36.69205	36.08944	26.00499
CO2	12.00661	12.96828	28.99384