Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: JACO05

Lab Code: CHEM Case No.: Q2008 SAS No.: Q2008 SDG No.: Q2008

Instrument ID: BNA_F Calibration Date(s): 05/05/2025 05/05/2025

Calibration Time(s): 13:54 17:15

LAB FILE ID: RRF2.5 = BF142295.D RRF005 = BF142296.D RRF010 = BF142297.D
RRF020 = BF142298.D RRF040 = BF142299.D RRF050 = BF142300.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
2-Fluorophenol		1.212	1.177	1.211	1.126	1.224	1.172	4.4
Benzaldehyde		1.049	0.959	0.903	0.734	0.752	0.843	17.7
Phenol-d6		1.510	1.458	1.489	1.375	1.500	1.441	4.6
Phenol		1.599	1.528	1.584	1.472	1.580	1.531	4.1
bis(2-Chloroethyl)ether		1.789	1.543	1.510	1.353	1.516	1.506	9.5
2-Chlorophenol		1.202	1.223	1.263	1.221	1.346	1.252	4.0
2-Methylphenol		1.033	1.008	1.022	0.972	1.070	1.014	3.3
2,2-oxybis(1-Chloropropane)		2.379	2.310	2.325	2.135	2.341	2.249	5.5
Acetophenone		0.505	0.474	0.464	0.416	0.446	0.445	9.0
3+4-Methylphenols		1.354	1.281	1.322	1.218	1.333	1.265	6.5
n-Nitroso-di-n-propylamine	0.840	0.943	0.915	0.918	0.860	0.933	0.891	4.7
Nitrobenzene-d5		0.289	0.304	0.336	0.327	0.360	0.328	7.5
Hexachloroethane		0.473	0.464	0.488	0.463	0.511	0.478	3.8
Nitrobenzene		0.281	0.293	0.316	0.306	0.337	0.309	6.0
Isophorone		0.639	0.623	0.630	0.586	0.648	0.621	3.5
2-Nitrophenol		0.089	0.097	0.121	0.132	0.154	0.129	21.5
2,4-Dimethylphenol		0.311	0.314	0.321	0.298	0.329	0.312	3.5
bis(2-Chloroethoxy)methane		0.430	0.414	0.418	0.374	0.408	0.399	6.1
2,4-Dichlorophenol		0.245	0.251	0.278	0.263	0.288	0.265	5.7
Naphthalene		1.102	1.031	1.028	0.906	0.978	0.969	9.5
4-Chloroaniline		0.373	0.373	0.398	0.383	0.435	0.395	5.8
Hexachlorobutadiene		0.188	0.182	0.181	0.168	0.185	0.177	5.3
Caprolactam		0.063	0.068	0.078	0.079	0.088	0.077	11.4
4-Chloro-3-methylphenol		0.281	0.270	0.283	0.265	0.290	0.276	3.7
2-Methylnaphthalene		0.672	0.636	0.635	0.569	0.615	0.602	8.6
Hexachlorocyclopentadiene		0.286	0.303	0.349	0.343	0.388	0.345	11.2
2,4,6-Trichlorophenol		0.306	0.320	0.360	0.351	0.393	0.352	8.5
2-Fluorobiphenyl		1.737	1.605	1.532	1.272	1.337	1.403	16.3
2,4,5-Trichlorophenol		0.339	0.353	0.390	0.363	0.413	0.375	7.0
1,1-Biphenyl		1.727	1.641	1.637	1.411	1.567	1.533	9.8
2-Chloronaphthalene		1.256	1.198	1.193	1.058	1.155	1.140	7.4
2-Nitroaniline		0.205	0.240	0.292	0.298	0.344	0.292	17.9
Dimethylphthalate		1.338	1.295	1.344	1.210	1.342	1.284	5.0
Acenaphthylene		2.083	2.025	2.009	1.783	1.958	1.908	7.9

All other compounds must meet a minimum RRF of 0.010.

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Lab Name: CHEMTECH Contract: JACO05

Lab Code: CHEM Case No.: Q2008 SAS No.: Q2008 SDG No.: Q2008

Instrument ID: BNA_F Calibration Date(s): 05/05/2025 05/05/2025

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RRF020 = BF142298.D RRF040 = BF142299.D RRF050 = BF142300.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
2,6-Dinitrotoluene		0.172	0.206	0.242	0.245	0.280	0.240	16.2
3-Nitroaniline		0.206	0.238	0.288	0.286	0.329	0.282	15.8
Acenaphthene		1.260	1.191	1.200	1.066	1.180	1.147	7.3
2,4-Dinitrophenol			0.062	0.083	0.097	0.120	0.102	25.4
4-Nitrophenol		0.159	0.178	0.210	0.214	0.253	0.212	15.8
Dibenzofuran		1.932	1.790	1.801	1.555	1.711	1.693	9.7
2,4-Dinitrotoluene		0.222	0.250	0.303	0.318	0.368	0.308	17.6
Diethylphthalate		1.344	1.325	1.355	1.207	1.344	1.283	6.3
4-Chlorophenyl-phenylether		0.699	0.666	0.658	0.577	0.638	0.623	9.3
Fluorene		1.521	1.407	1.374	1.195	1.283	1.292	11.8
4-Nitroaniline		0.207	0.230	0.248	0.225	0.240	0.223	8.2
4,6-Dinitro-2-methylphenol			0.052	0.068	0.081	0.094	0.082	23.5
n-Nitrosodiphenylamine		0.704	0.683	0.693	0.629	0.686	0.666	5.3
2,4,6-Tribromophenol		0.161	0.176	0.198	0.191	0.218	0.193	10.2
4-Bromophenyl-phenylether		0.230	0.227	0.232	0.216	0.238	0.227	3.4
Hexachlorobenzene		0.264	0.246	0.253	0.237	0.258	0.249	3.8
Atrazine		0.157	0.165	0.176	0.174	0.196	0.175	7.2
Pentachlorophenol		0.094	0.109	0.130	0.139	0.153	0.131	16.7
Phenanthrene		1.193	1.102	1.105	0.988	1.058	1.048	9.1
Anthracene		1.210	1.136	1.134	1.018	1.093	1.077	8.8
Carbazole		1.065	1.016	1.024	0.926	0.986	0.966	8.2
Di-n-butylphthalate		0.957	1.022	1.082	1.013	1.093	1.016	5.9
Fluoranthene		1.198	1.154	1.128	0.985	1.051	1.048	11.5
Pyrene		1.822	1.748	1.902	1.705	1.912	1.780	7.0
Terphenyl-d14		1.493	1.424	1.460	1.255	1.390	1.351	9.6
Butylbenzylphthalate		0.282	0.330	0.439	0.469	0.545	0.449	23.7
3,3-Dichlorobenzidine		0.250	0.279	0.316	0.296	0.327	0.301	9.4
Benzo(a)anthracene		1.370	1.299	1.317	1.238	1.354	1.295	4.8
Chrysene		1.294	1.227	1.247	1.104	1.238	1.206	5.6
Bis(2-ethylhexyl)phthalate		0.328	0.417	0.557	0.601	0.699	0.573	26.4
Di-n-octyl phthalate			0.586	0.856	1.029	1.242	1.057	27.8
Benzo(b)fluoranthene		1.312	1.216	1.227	1.163	1.263	1.211	5.1
Benzo(k)fluoranthene		1.158	1.142	1.164	1.040	1.172	1.109	6.9
Benzo(a)pyrene		1.034	1.042	1.102	1.066	1.183	1.085	4.9
Indeno(1,2,3-cd)pyrene		1.152	1.281	1.421	1.384	1.596	1.391	10.4

All other compounds must meet a minimum RRF of 0.010.

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RRF020 = BF142298.D RRF040 = BF142299.D RRF050 = BF142300.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
Dibenzo(a,h)anthracene		0.987	1.066	1.194	1.137	1.308	1.149	9.2
Benzo(g,h,i)perylene		0.971	1.056	1.175	1.120	1.295	1.141	9.4
1,2,4,5-Tetrachlorobenzene		0.600	0.586	0.586	0.515	0.574	0.559	6.5
1,4-Dioxane		0.553	0.527	0.535	0.503	0.543	0.528	3.4
2,3,4,6-Tetrachlorophenol		0.266	0.288	0.320	0.305	0.344	0.309	8.4

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF050525.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Mon May 05 18:41:44 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF142295.D 5 =BF142296.D 10 =BF142297.D 20 =BF142298.D 40 =BF142299.D 50 =BF142300.D 60 =BF142301.D 80 =BF1423
02.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.553	0.527	0.535	0.503	0.543	0.521	0.511	0.528	3.36
3)		Pyridine		1.159	1.233	1.210	1.176	1.311	1.312	1.270	1.239	4.99
4)		n-Nitrosodimet...		0.718	0.707	0.729	0.696	0.759	0.726	0.705	0.720	2.88
5)	S	2-Fluorophenol		1.212	1.177	1.211	1.126	1.224	1.165	1.086	1.172	4.35
6)		Aniline		0.955	1.370	1.568	1.467	1.543	1.519	1.472	1.413	15.03
7)	S	Phenol-d6		1.510	1.458	1.489	1.375	1.500	1.419	1.336	1.441	4.64
8)		2-Chlorophenol		1.202	1.223	1.263	1.221	1.346	1.283	1.225	1.252	4.00
9)		Benzaldehyde		1.049	0.959	0.903	0.734	0.752	0.663		0.843	17.74
10)	C	Phenol		1.599	1.528	1.584	1.472	1.580	1.524	1.405	1.527	4.55
11)		bis(2-Chloroet...		1.789	1.543	1.510	1.353	1.516	1.441	1.392	1.506	9.49
12)		1,3-Dichlorobe...		1.555	1.505	1.466	1.347	1.477	1.379	1.298	1.432	6.48
13)	C	1,4-Dichlorobe...		1.562	1.499	1.486	1.364	1.476	1.386	1.294	1.438	6.46
14)		1,2-Dichlorobe...		1.480	1.432	1.415	1.317	1.424	1.340	1.254	1.380	5.71
15)		Benzyl Alcohol		0.816	0.843	0.933	0.928	1.030	1.008	0.972	0.933	8.56
16)		2,2'-oxybis(1-...		2.379	2.310	2.325	2.135	2.341	2.211	2.044	2.249	5.48
17)		2-Methylphenol		1.033	1.008	1.022	0.972	1.070	1.013	0.978	1.014	3.30
18)		Hexachloroethane		0.473	0.464	0.488	0.463	0.511	0.487	0.463	0.478	3.78
19)	P	n-Nitroso-di-n...	0.840	0.943	0.915	0.918	0.860	0.933	0.885	0.837	0.891	4.69
20)		3+4-Methylphenols		1.354	1.281	1.322	1.218	1.333	1.226	1.121	1.265	6.48
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.505	0.474	0.464	0.416	0.446	0.419	0.389	0.445	8.95
23)	S	Nitrobenzene-d5		0.289	0.304	0.336	0.327	0.360	0.348	0.332	0.328	7.48
24)		Nitrobenzene		0.281	0.293	0.316	0.306	0.337	0.325	0.305	0.309	6.05
25)		Isophorone		0.639	0.623	0.630	0.586	0.648	0.622	0.598	0.621	3.53
26)	C	2-Nitrophenol		0.089	0.097	0.121	0.132	0.154	0.155	0.155	0.129	21.55
27)		2,4-Dimethylph...		0.311	0.314	0.321	0.298	0.329	0.314	0.299	0.312	3.55
28)		bis(2-Chloroet...		0.430	0.414	0.418	0.374	0.408	0.386	0.366	0.399	6.09
29)	C	2,4-Dichloroph...		0.245	0.251	0.278	0.263	0.288	0.274	0.260	0.265	5.71
30)		1,2,4-Trichlor...		0.329	0.309	0.309	0.281	0.304	0.289	0.271	0.299	6.60
31)		Naphthalene		1.102	1.031	1.028	0.906	0.978	0.906	0.835	0.969	9.52
32)		Benzoic acid			0.084	0.117	0.140	0.178	0.186	0.194	0.150	29.22
33)		4-Chloroaniline		0.373	0.373	0.398	0.383	0.435	0.415	0.392	0.396	5.80
34)	C	Hexachlorobuta...		0.188	0.182	0.181	0.168	0.185	0.173	0.162	0.177	5.32
35)		Caprolactam		0.063	0.068	0.078	0.079	0.088	0.083	0.082	0.077	11.39
36)	C	4-Chloro-3-met...		0.281	0.270	0.283	0.265	0.290	0.279	0.262	0.276	3.68
37)		2-Methylnaphth...		0.672	0.636	0.635	0.569	0.615	0.568	0.521	0.602	8.60
38)		1-Methylnaphth...		0.710	0.675	0.665	0.594	0.630	0.587	0.535	0.628	9.59

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF050525.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.600	0.586	0.586	0.515	0.574	0.538	0.512	0.559	6.51
41)	P	Hexachlorocycl...	0.286	0.303	0.349	0.343	0.388	0.379	0.369	0.345	11.16
42)	S	2,4,6-Tribromo...	0.161	0.176	0.198	0.191	0.218	0.210	0.197	0.193	10.16
43)	C	2,4,6-Trichlor...	0.306	0.320	0.360	0.351	0.393	0.371	0.365	0.352	8.53
44)		2,4,5-Trichlor...	0.339	0.353	0.390	0.363	0.413	0.397	0.369	0.375	7.00
45)	S	2-Fluorobiphenyl	1.737	1.605	1.532	1.272	1.337	1.246	1.090	1.403	16.29
46)		1,1'-Biphenyl	1.727	1.641	1.637	1.411	1.567	1.442	1.310	1.533	9.75
47)		2-Chloronaphth...	1.256	1.198	1.193	1.058	1.155	1.106	1.018	1.140	7.40
48)		2-Nitroaniline	0.205	0.240	0.292	0.298	0.344	0.337	0.330	0.292	17.90
49)		Acenaphthylene	2.083	2.025	2.009	1.783	1.958	1.830	1.665	1.908	7.94
50)		Dimethylphthalate	1.338	1.295	1.344	1.210	1.342	1.275	1.186	1.284	5.04
51)		2,6-Dinitrotol...	0.172	0.206	0.242	0.245	0.280	0.273	0.263	0.240	16.19
52)	C	Acenaphthene	1.260	1.191	1.200	1.066	1.180	1.111	1.021	1.147	7.32
53)		3-Nitroaniline	0.206	0.238	0.288	0.286	0.329	0.319	0.307	0.282	15.80
54)	P	2,4-Dinitrophenol		0.062	0.083	0.097	0.120	0.124	0.127	0.102	25.44
55)		Dibenzofuran	1.932	1.790	1.801	1.555	1.711	1.609	1.453	1.693	9.72
56)	P	4-Nitrophenol	0.159	0.178	0.210	0.214	0.253	0.240	0.231	0.212	15.82
57)		2,4-Dinitrotol...	0.222	0.250	0.303	0.318	0.368	0.355	0.341	0.308	17.63
58)		Fluorene	1.521	1.407	1.374	1.195	1.283	1.183	1.080	1.292	11.77
59)		2,3,4,6-Tetrac...	0.266	0.288	0.320	0.305	0.344	0.329	0.314	0.309	8.38
60)		Diethylphthalate	1.344	1.325	1.355	1.207	1.344	1.252	1.151	1.283	6.27
61)		4-Chlorophenyl...	0.699	0.666	0.658	0.577	0.638	0.590	0.535	0.623	9.26
62)		4-Nitroaniline	0.207	0.230	0.248	0.225	0.240	0.219	0.195	0.223	8.23
63)		Azobenzene	1.338	1.271	1.285	1.132	1.270	1.185	1.098	1.226	7.23
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...		0.052	0.068	0.081	0.094	0.098	0.101	0.082	23.49
66)	c	n-Nitrosodiphe...	0.704	0.683	0.693	0.629	0.686	0.654	0.610	0.666	5.28
67)		4-Bromophenyl-...	0.230	0.227	0.232	0.216	0.238	0.227	0.217	0.227	3.44
68)		Hexachlorobenzene	0.264	0.246	0.253	0.237	0.258	0.248	0.240	0.249	3.84
69)		Atrazine	0.157	0.165	0.176	0.174	0.196	0.185	0.175	0.175	7.17
70)	C	Pentachlorophenol	0.094	0.109	0.130	0.139	0.153	0.150	0.144	0.131	16.65
71)		Phenanthrene	1.193	1.102	1.105	0.988	1.058	0.987	0.906	1.048	9.14
72)		Anthracene	1.210	1.136	1.134	1.018	1.093	1.023	0.927	1.077	8.77
73)		Carbazole	1.065	1.016	1.024	0.926	0.986	0.911	0.837	0.966	8.17
74)		Di-n-butylphth...	0.957	1.022	1.082	1.013	1.093	1.019	0.928	1.016	5.91
75)	C	Fluoranthene	1.198	1.154	1.128	0.985	1.051	0.956	0.863	1.048	11.46
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine		0.272	0.384	0.358	0.426	0.403	0.337	0.363	15.09
78)		Pyrene	1.822	1.748	1.902	1.705	1.912	1.817	1.555	1.780	6.99
79)	S	Terphenyl-d14	1.493	1.424	1.460	1.255	1.390	1.314	1.123	1.351	9.61
80)		Butylbenzylpht...	0.282	0.330	0.439	0.469	0.545	0.549	0.527	0.449	23.70
81)		Benzo(a)anthra...	1.370	1.299	1.317	1.238	1.354	1.296	1.192	1.295	4.84
82)		3,3'-Dichlorob...	0.250	0.279	0.316	0.296	0.327	0.323	0.317	0.301	9.40
83)		Chrysene	1.294	1.227	1.247	1.104	1.238	1.203	1.128	1.206	5.59
84)		Bis(2-ethylhex...	0.328	0.417	0.557	0.601	0.699	0.716	0.697	0.573	26.35
85)	c	Di-n-octyl pht...		0.586	0.856	1.029	1.242	1.315	1.317	1.057	27.77

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF050525.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.152	1.281	1.421	1.384	1.596	1.504	1.402	1.391	10.38
88)		Benzo(b)fluora...	1.312	1.216	1.227	1.163	1.263	1.142	1.156	1.211	5.14
89)		Benzo(k)fluora...	1.158	1.142	1.164	1.040	1.172	1.114	0.969	1.109	6.88
90)	C	Benzo(a)pyrene	1.034	1.042	1.102	1.066	1.183	1.119	1.054	1.085	4.88
91)		Dibenzo(a,h)an...	0.987	1.066	1.194	1.137	1.308	1.224	1.129	1.149	9.17
92)		Benzo(g,h,i)pe...	0.971	1.056	1.175	1.120	1.295	1.225	1.143	1.141	9.37

(#) = Out of Range