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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: P5288 SAS No.: P5288 SDG No.: P5288

Instrument ID: MSVOA_X Calibration Date(s): 12/11/2024 12/11/2024

Heated Purge: (Y/N) N Calibration Time(s): 10:41 13:00

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF001 = VX044219.D RRF005 = VX044220.D RRF020 = VX044221.D
RRF050 = VX044222.D RRF100 = VX044223.D RRF150 = VX044224.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.877	0.749	0.721	0.788	0.745	0.759	0.773	7.2
Chloromethane	0.743	0.747	0.735	0.756	0.715	0.740	0.739	1.8
Vinyl Chloride	0.805	0.790	0.782	0.786	0.722	0.737	0.770	4.3
Ethyl Acetate	0.536	0.512	0.551	0.581	0.565	0.574	0.553	4.7
Bromomethane		0.590	0.513	0.551	0.529	0.548	0.546	5.3
Chloroethane	0.464	0.520	0.515	0.532	0.422	0.426	0.480	10.2
Trichlorofluoromethane	1.582	1.519	1.514	1.541	1.478	1.414	1.508	3.8
1,1,2-Trichlorotrifluoroethane	0.633	0.628	0.592	0.615	0.573	0.620	0.610	3.8
Tert butyl alcohol		0.103	0.111	0.120	0.133	0.151	0.124	15.4
1,1-Dichloroethene	0.512	0.560	0.544	0.596	0.554	0.596	0.560	5.7
Acrolein		0.179	0.163	0.185	0.174	0.193	0.179	6.3
Acrylonitrile	0.319	0.333	0.332	0.358	0.343	0.367	0.342	5.2
Acetone	0.359	0.353	0.331	0.381	0.348	0.372	0.357	5
Carbon Disulfide	0.841	0.872	0.937	1.150	1.230	1.362	1.065	20
Methyl tert-butyl Ether	2.054	2.188	2.127	2.305	2.170	2.279	2.187	4.3
Methyl Acetate	0.965	0.889	0.883	0.953	0.888	0.951	0.922	4.2
Methylene Chloride	0.679	0.678	0.666	0.689	0.648	0.668	0.671	2.1
trans-1,2-Dichloroethene	0.600	0.556	0.577	0.619	0.595	0.626	0.596	4.4
Vinyl Acetate	1.238	1.571	1.732	1.912	1.842	1.958	1.709	15.7
1,1-Dichloroethane	1.071	1.173	1.154	1.244	1.171	1.218	1.172	5.1
Cyclohexane		0.931	0.963	0.977	0.922	0.938	0.946	2.4
2-Butanone	0.449	0.491	0.510	0.548	0.509	0.541	0.508	7.1
Carbon Tetrachloride	0.484	0.443	0.432	0.501	0.502	0.529	0.482	7.8
2,2-Dichloropropane	0.782	0.896	0.956	1.045	0.992	1.039	0.952	10.5
cis-1,2-Dichloroethene	0.809	0.737	0.728	0.772	0.731	0.762	0.756	4.1
Bromochloromethane	0.578	0.577	0.576	0.592	0.556	0.568	0.575	2.1
Chloroform	1.389	1.312	1.272	1.343	1.272	1.310	1.316	3.4
1,1,1-Trichloroethane	0.993	1.019	1.077	1.176	1.119	1.173	1.093	7.1
Methylcyclohexane	0.514	0.503	0.527	0.555	0.550	0.562	0.535	4.5
1,1-Dichloropropene	0.489	0.442	0.422	0.444	0.445	0.444	0.448	4.9

* Compounds with required minimum RRF and maximum %RSD values.
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RRF of 1,4-Dioxane = Value should be divide by 1000.

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COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Benzene	1.353	1.353	1.332	1.410	1.353	1.353	1.359	1.9
1,2-Dichloroethane	0.554	0.557	0.545	0.584	0.556	0.564	0.560	2.4
Trichloroethene	0.356	0.325	0.325	0.349	0.337	0.342	0.339	3.8
1,2-Dichloropropane	0.368	0.345	0.330	0.357	0.341	0.342	0.347	3.8
Dibromomethane	0.247	0.267	0.259	0.286	0.276	0.281	0.269	5.5
Bromodichloromethane	0.380	0.411	0.436	0.508	0.518	0.538	0.465	13.9
4-Methyl-2-Pentanone	0.506	0.551	0.547	0.590	0.561	0.582	0.556	5.4
Toluene	0.908	0.830	0.816	0.877	0.841	0.849	0.853	4
t-1,3-Dichloropropene	0.338	0.357	0.439	0.514	0.526	0.558	0.455	20.3
cis-1,3-Dichloropropene	0.404	0.441	0.488	0.567	0.558	0.583	0.507	14.6
1,1,2-Trichloroethane	0.337	0.332	0.335	0.358	0.334	0.340	0.339	2.8
1,3-Dichloropropane	0.578	0.593	0.585	0.613	0.583	0.590	0.590	2.1
2-Chloroethyl Vinyl ether	0.222	0.268	0.256	0.293	0.285	0.296	0.270	10.5
2-Hexanone	0.323	0.386	0.408	0.439	0.420	0.438	0.403	10.8
Dibromochloromethane	0.254	0.248	0.306	0.370	0.378	0.398	0.326	20.2
1,2-Dibromoethane	0.303	0.322	0.344	0.369	0.364	0.370	0.345	8.1
Tetrachloroethene	0.359	0.354	0.317	0.321	0.312	0.327	0.332	6
Chlorobenzene	1.130	1.068	1.039	1.088	1.036	1.067	1.071	3.3
1,1,1,2-Tetrachloroethane	0.301	0.305	0.334	0.375	0.368	0.383	0.344	10.5
Hexachloroethane	0.358	0.396	0.406	0.507	0.542	0.567	0.463	18.9
Ethyl Benzene	1.853	1.806	1.816	1.927	1.831	1.875	1.851	2.4
m/p-Xylenes	0.653	0.660	0.665	0.707	0.683	0.707	0.679	3.5
o-Xylene	0.686	0.683	0.685	0.703	0.671	0.697	0.687	1.6
Styrene	1.007	1.019	1.099	1.162	1.148	1.177	1.102	6.7
Bromoform	0.137	0.173	0.194	0.247	0.269	0.297	0.219	28
Isopropylbenzene	3.665	3.976	3.920	3.912	3.747	3.747	3.828	3.2
1,1,2,2-Tetrachloroethane	1.410	1.350	1.332	1.336	1.256	1.293	1.329	3.9
1,2,3-Trichloropropane	1.272	1.075	1.113	1.124	1.059	1.055	1.116	7.3
Bromobenzene	1.009	0.934	0.890	0.942	0.899	0.895	0.928	4.9
n-propylbenzene	3.739	4.263	4.319	4.502	4.283	4.277	4.231	6.1

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COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
2-Chlorotoluene	2.940	2.847	2.707	2.771	2.582	2.569	2.736	5.4
1,3,5-Trimethylbenzene	3.066	3.222	3.224	3.308	3.097	3.128	3.174	2.9
4-Chlorotoluene	2.964	3.051	3.013	3.114	3.011	3.026	3.030	1.7
tert-Butylbenzene	3.170	3.077	3.105	3.259	3.106	3.106	3.137	2.1
1,2,4-Trimethylbenzene	2.699	3.254	3.207	3.290	3.148	3.105	3.117	6.9
sec-Butylbenzene	3.679	3.748	3.840	3.986	3.804	3.793	3.808	2.7
p-Isopropyltoluene	2.949	3.061	3.254	3.347	3.197	3.211	3.170	4.5
1,3-Dichlorobenzene	1.519	1.634	1.640	1.683	1.625	1.628	1.621	3.3
1,4-Dichlorobenzene	1.811	1.640	1.632	1.672	1.621	1.623	1.667	4.4
n-Butylbenzene	2.249	2.387	2.659	2.844	2.889	2.964	2.665	10.9
1,2-Dichlorobenzene	1.745	1.666	1.668	1.726	1.654	1.643	1.684	2.5
1,2-Dibromo-3-Chloropropane	0.222	0.226	0.241	0.273	0.279	0.306	0.258	13
1,2,4-Trichlorobenzene	0.770	0.827	0.891	0.978	1.013	1.058	0.923	12.2
Hexachlorobutadiene	0.390	0.349	0.367	0.369	0.371	0.381	0.371	3.8
Naphthalene	2.925	3.346	3.629	3.835	3.866	4.015	3.603	11.2
1,2,3-Trichlorobenzene	0.854	0.885	0.984	1.019	1.055	1.077	0.979	9.3
1,2-Dichloroethane-d4		0.934	0.778	0.921	0.862	0.888	0.877	7.1
Dibromofluoromethane		0.353	0.298	0.367	0.360	0.354	0.346	8
Toluene-d8		1.148	1.010	1.251	1.229	1.203	1.168	8.3
4-Bromofluorobenzene		0.390	0.351	0.442	0.432	0.426	0.408	9.2

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