

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: P3845 SAS No.: P3845 SDG No.: P3845

Instrument ID: MSVOA_N Calibration Date(s): 09/10/2024 09/10/2024

Heated Purge: (Y/N) N Calibration Time(s): 09:08 12:43

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF100 = VN083742.D		RRF050 = VN083743.D		RRF010 = VN083745.D			
		RRF005 = VN083746.D		RRF001 = VN083747.D		RRF020 = VN083749.D			
COMPOUND	RRF100	RRF050	RRF010	RRF005	RRF001	RRF020	RRF	% RSD	
Dichlorodifluoromethane	0.566	0.601	0.558	0.551	0.591	0.618	0.581	4.6	
Chloromethane	0.573	0.623	0.619	0.657	1.083	0.689	0.707	26.6	
Vinyl Chloride	0.591	0.656	0.597	0.619	0.663	0.692	0.636	6.3	
Ethyl Acetate	0.432	0.458	0.393	0.429	0.385	0.527	0.437	11.8	
Isopropyl Acetate	0.775	0.796	0.688	0.773	0.781	0.942	0.792	10.4	
Bromomethane	0.327	0.359	0.339	0.393		0.410	0.365	9.7	
Chloroethane	0.380	0.431	0.448	0.464	0.470	0.486	0.446	8.5	
Trichlorofluoromethane	0.990	1.065	0.956	1.071	1.167	1.234	1.080	9.7	
1,1,2-Trichlorotrifluoroethane	0.547	0.586	0.522	0.580	0.530	0.672	0.573	9.6	
Tert butyl alcohol	0.089	0.101	0.089	0.110		0.115	0.101	11.7	
Diethyl Ether	0.346	0.367	0.350	0.370	0.321	0.419	0.362	9.1	
1,1-Dichloroethene	0.516	0.559	0.476	0.557	0.511	0.626	0.541	9.6	
Acrolein	0.088	0.104	0.101	0.111		0.094	0.100	8.9	
Acrylonitrile	0.253	0.275	0.243	0.277	0.283	0.316	0.275	9.2	
Acetone	0.288	0.297	0.250	0.283	0.299	0.396	0.302	16.3	
Carbon Disulfide	1.389	1.530	1.357	1.467	1.703	1.630	1.513	9	
Methyl tert-butyl Ether	1.864	2.004	1.768	1.936	1.897	2.272	1.957	8.8	
Methyl Acetate	0.607	0.667	0.601	0.751	1.033	0.748	0.735	21.8	
Methylene Chloride	0.568	0.609	0.567	0.621	0.643	0.703	0.618	8.3	
trans-1,2-Dichloroethene	0.533	0.581	0.522	0.617	0.584	0.640	0.580	8	
Vinyl Acetate	1.485	1.546	1.254	1.394	1.310	1.727	1.453	11.9	
1,1-Dichloroethane	1.069	1.145	1.014	1.165	1.168	1.295	1.143	8.4	
Cyclohexane	0.965	1.017	1.017	1.244		1.206	1.090	11.6	
2-Butanone	0.372	0.393	0.336	0.381	0.410	0.491	0.397	13.2	
Carbon Tetrachloride	0.541	0.561	0.475	0.544	0.515	0.643	0.547	10.2	
2,2-Dichloropropane	1.045	1.093	0.923	0.993	0.998	1.262	1.052	11.2	
cis-1,2-Dichloroethene	0.664	0.717	0.621	0.646	0.686	0.795	0.688	9	
Chloroform	1.145	1.221	1.081	1.224	1.180	1.428	1.213	9.7	
1,1,1-Trichloroethane	1.063	1.137	0.989	1.131	1.081	1.293	1.116	9.1	
Methylcyclohexane	0.568	0.573	0.477	0.504	0.507	0.661	0.548	12.2	

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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COMPOUND	RRF100	RRF050	RRF010	RRF005	RRF001	RRF020	RRF	% RSD	
1,1-Dichloropropene	0.471	0.472	0.416	0.472	0.503	0.556	0.482	9.5	
Benzene	1.400	1.441	1.284	1.386	1.450	1.740	1.450	10.6	
1,2-Dichloroethane	0.523	0.546	0.495	0.534	0.497	0.656	0.542	11	
Trichloroethene	0.323	0.340	0.300	0.306	0.354	0.392	0.336	10.2	
1,2-Dichloropropane	0.338	0.349	0.303	0.345	0.339	0.428	0.350	11.9	
Dibromomethane	0.242	0.254	0.221	0.246	0.213	0.298	0.245	12.2	
Bromodichloromethane	0.536	0.549	0.461	0.512	0.493	0.636	0.531	11.3	
4-Methyl-2-Pentanone	0.424	0.443	0.379	0.416	0.405	0.521	0.431	11.3	
Toluene	0.883	0.908	0.773	0.878	0.820	1.060	0.887	11.1	
t-1,3-Dichloropropene	0.550	0.559	0.467	0.510	0.519	0.626	0.539	10	
cis-1,3-Dichloropropene	0.574	0.586	0.511	0.533	0.510	0.680	0.566	11.4	
1,1,2-Trichloroethane	0.315	0.328	0.289	0.323	0.345	0.387	0.331	10	
1,3-Dichloropropane	0.557	0.576	0.505	0.583	0.512	0.682	0.569	11.3	
2-Chloroethyl Vinyl ether	0.245	0.173	0.177	0.176	0.142	0.187	0.184	18.3	
2-Hexanone	0.315	0.329	0.276	0.312	0.277	0.405	0.319	14.8	
Dibromochloromethane	0.378	0.392	0.335	0.342	0.337	0.440	0.371	11.1	
1,2-Dibromoethane	0.324	0.332	0.285	0.309	0.342	0.391	0.330	10.8	
Tetrachloroethene	0.313	0.321	0.302	0.340	0.341	0.377	0.333	8	
Chlorobenzene	1.046	1.091	0.973	1.105	1.196	1.257	1.111	9.2	
1,1,1,2-Tetrachloroethane	0.375	0.394	0.350	0.367	0.381	0.445	0.385	8.6	
Hexachloroethane	0.608	0.642	0.593	0.626	0.699	0.658	0.638	6	
Ethyl Benzene	1.985	2.029	1.747	1.889	1.913	2.281	1.974	9	
m/p-Xylenes	0.734	0.754	0.652	0.688	0.713	0.856	0.733	9.6	
o-Xylene	0.707	0.740	0.654	0.668	0.657	0.831	0.710	9.6	
Styrene	1.208	1.244	1.008	1.072	1.100	1.354	1.164	11	
Bromoform	0.272	0.278	0.226	0.257	0.223	0.301	0.260	11.8	
Isopropylbenzene	3.835	4.076	3.596	3.808	3.759	4.135	3.868	5.2	
1,1,2,2-Tetrachloroethane	1.015	1.095	1.064	1.181	1.298	1.165	1.137	8.9	
1,2,3-Trichloropropane	0.876	0.942	0.897	1.033	1.124	1.032	0.984	9.7	
Bromobenzene	0.841	0.899	0.884	0.947	1.086	0.930	0.931	9.1	

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COMPOUND	RRF100	RRF050	RRF010	RRF005	RRF001	RRF020	RRF	% RSD
n-propylbenzene	4.516	4.759	4.074	4.320	4.560	4.776	4.501	6
2-Chlorotoluene	2.700	2.893	2.717	2.887	2.959	3.067	2.870	4.9
1,3,5-Trimethylbenzene	3.204	3.419	3.028	3.122	3.309	3.486	3.261	5.4
4-Chlorotoluene	2.723	2.948	2.670	2.953	2.990	2.998	2.880	5
tert-Butylbenzene	2.796	3.014	2.627	2.726	2.890	3.067	2.853	5.9
1,2,4-Trimethylbenzene	3.225	3.483	3.059	3.184	3.217	3.488	3.276	5.3
sec-Butylbenzene	3.856	4.084	3.438	3.734	3.487	4.106	3.784	7.6
p-Isopropyltoluene	3.237	3.448	2.828	3.128	3.043	3.348	3.172	7
1,3-Dichlorobenzene	1.577	1.741	1.591	1.785	2.096	1.754	1.757	10.7
1,4-Dichlorobenzene	1.586	1.741	1.654	1.824	2.154	1.718	1.779	11.3
n-Butylbenzene	2.866	3.002	2.554	2.687	3.059	2.920	2.848	6.8
1,2-Dichlorobenzene	1.571	1.688	1.543	1.774	1.860	1.740	1.696	7.2
1,2-Dibromo-3-Chloropropane	0.219	0.237	0.214	0.233	0.220	0.237	0.227	4.5
1,2,4-Trichlorobenzene	0.861	0.932	0.848	0.907	1.038	0.875	0.910	7.7
Hexachlorobutadiene	0.352	0.374	0.362	0.373	0.461	0.397	0.386	10.3
Naphthalene	2.727	3.016	2.594	2.782	2.808	2.686	2.769	5.2
1,2,3-Trichlorobenzene	0.815	0.895	0.813	0.875	0.981	0.840	0.870	7.3
1,2-Dichloroethane-d4	0.745	0.849	0.846	0.599		0.732	0.754	13.6
Dibromofluoromethane	0.316	0.340	0.340	0.284		0.321	0.320	7.2
Toluene-d8	1.172	1.271	1.199	0.761		1.130	1.107	18.1
4-Bromofluorobenzene	0.448	0.488	0.458	0.386		0.503	0.457	9.9
N-amyl acetate	1.631	1.739	1.482	1.618	1.687	1.745	1.650	5.9
Allyl chloride	0.934	0.999	0.906	0.913	0.922	1.107	0.964	8.1
trans-1,4-Dichloro-2-butene	0.387	0.411	0.319	0.419		0.390	0.385	10.3
Methacrylonitrile	0.260	0.264	0.211	0.239	0.278	0.299	0.259	11.8
1,4-Dioxane	5.603	6.006	5.432	5.857	7.009	7.204	6.185	12
Methyl methacrylate	0.372	0.378	0.328	0.364	0.364	0.450	0.376	10.7

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