

breakthrough volume of MOF #55 (extrapolated)

legend

	<0.01 Liter/gram
	0.01-10 Liter/gram
	>10 Liter/gram

Temperature, °C	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300
<b>Acetates</b>																
ethyl acetate	3.24E+05	34799.041	4965.144	895.011	195.888	50.456	14.920	4.964	1.828	0.735	0.320	0.149	0.073	0.038	0.021	0.012
methyl Decanoate	3.62E+11	9.63E+09	4.08E+08	2.52E+07	2.14E+06	2.36E+05	3.26E+04	5458.616	1077.652	245.511	63.383	18.263	5.798	2.006	0.750	0.300
<b>Hydrocarbons</b>																
ethane	0.452	0.195	0.094	0.049	0.028	0.017	0.010	0.007	0.005	0.003	0.002	0.002	0.001	0.001	0.001	0.001
ethylene	0.275	0.126	0.064	0.035	0.021	0.013	0.008	0.006	0.004	0.003	0.002	0.002	0.001	0.001	0.001	0.001
propane	6.785	2.320	0.910	0.399	0.192	0.100	0.056	0.033	0.020	0.013	0.009	0.006	0.004	0.003	0.002	0.002
n-butane	136.058	35.617	11.065	3.955	1.589	0.704	0.339	0.175	0.096	0.056	0.034	0.021	0.014	0.009	0.007	0.005
pentane	1184.235	243.323	61.195	18.164	6.187	2.365	0.997	0.457	0.225	0.118	0.065	0.038	0.023	0.014	0.009	0.006
hexane	1.59E+04	2569.607	524.328	129.484	37.465	12.381	4.580	1.865	0.825	0.392	0.199	0.106	0.060	0.035	0.021	0.013
n-decane	9.68E+07	6.02E+06	5.33E+05	6.32E+04	9.55E+03	1764.609	387.338	98.467	28.407	9.145	3.240	1.249	0.519	0.230	0.108	0.054
n-dodecane	4.88E+09	2.04E+08	1.28E+07	1.12E+06	1.29E+05	1.87E+04	3307.312	691.361	166.997	45.727	13.970	4.699	1.721	0.679	0.287	0.129
butylcyclohexane	4.57E+07	3.31E+06	3.36E+05	4.48E+04	7.51E+03	1523.783	363.777	99.765	30.832	10.569	3.966	1.612	0.702	0.326	0.160	0.082
decahydronaphthalene	6.48E+07	5.16E+06	5.67E+05	8.12E+04	14504.201	3115.520	782.578	224.706	72.401	25.781	10.017	4.203	1.887	0.899	0.452	0.239
<b>Alcohols</b>																
methanol	274734.113	37595.772	6632.831	1441.191	372.252	111.166	37.541	14.083	5.784	2.569	1.222	0.618	0.329	0.184	0.107	0.065
2-methyl-2-propanol	1.70E+05	19103.983	2832.189	528.026	119.073	31.500	9.540	3.244	1.218	0.499	0.220	0.104	0.052	0.027	0.015	0.009
ethanol	3.54E+05	4.81E+04	8.43E+03	1.82E+03	468.667	139.388	46.899	17.535	7.180	3.181	1.510	0.761	0.405	0.226	0.131	0.079
2-propanol	9.90E+05	93903.627	12030.589	1972.594	396.946	94.856	26.221	8.209	2.861	1.094	0.454	0.202	0.096	0.048	0.025	0.014
1-hexanol	4.90E+05	6.58E+04	1.14E+04	2.44E+03	621.821	183.465	61.288	22.767	9.267	4.084	1.929	0.968	0.513	0.285	0.165	0.099
1-heptanol	3.77E+08	1.94E+07	1.46E+06	1.50E+05	19955.829	3292.181	652.409	151.222	40.118	11.966	3.953	1.429	0.559	0.235	0.105	0.050
<b>Aldehydes and Ketones</b>																
Acetaldehydes	302.872	58.369	13.882	3.923	1.279	0.470	0.191	0.085	0.041	0.021	0.011	0.006	0.004	0.002	0.001	0.001
acetone	4.14E+04	5113.071	824.594	165.556	39.868	11.184	3.570	1.273	0.499	0.213	0.097	0.047	0.025	0.013	0.008	0.004
Nonanal	1.66E+10	5.84E+08	3.15E+07	2.41E+06	2.47E+05	3.22E+04	5179.439	993.789	222.084	56.648	16.219	5.139	1.781	0.668	0.269	0.116
<b>Halogens</b>																
1,2-dichloroethylene	523.007	124.894	35.812	11.930	4.501	1.885	0.863	0.426	0.224	0.125	0.073	0.045	0.028	0.019	0.013	0.009
Trichloroethylene	5161.892	1005.706	241.472	68.811	22.605	8.367	3.427	1.530	0.736	0.378	0.205	0.117	0.070	0.043	0.028	0.018
<b>Amines</b>																
n-propylamine	tested from 140 °C to 260 °C and no obvious peak was observed															
triethylamine	tested from 140 °C to 260 °C and no obvious peak was observed															
<b>Aromatics</b>																
benzene	2564.801	538.831	138.167	41.718	14.426	5.590	2.385	1.105	0.550	0.291	0.162	0.095	0.058	0.037	0.024	0.016
toluene	3.42E+04	5458.239	1100.055	268.719	77.004	25.230	9.260	3.745	1.647	0.779	0.392	0.209	0.117	0.068	0.041	0.026
1-methylnaphthalene	2.03E+08	1.44E+07	1.44E+06	1.89E+05	3.12E+04	6260.123	1478.691	401.650	123.052	41.849	15.591	6.293	2.726	1.257	0.613	0.315
1,2,3,4-tetrahydronaphthalene	1.19E+07	1.17E+06	1.55E+05	2.60E+04	5363.365	1308.882	368.710	117.419	41.561	16.123	6.776	3.055	1.466	0.743	0.396	0.220
<b>water</b>																
water	1.54E+01	8.050	4.560	2.766	1.775	1.195	0.837	0.607	0.454	0.348	0.273	0.218	0.177	0.147	0.123	0.104
Temperature, °C	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300