

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration
			T, C	Value @ T	State	Debye	Angstrom
			25.0	1.2170	gas	0.00	3.889
235	C4F8	OCTAFLUOROCYCLOBUTANE	—	—	—	—	4.368
236	C4F10	DECAFLUOROBUTANE	—	—	—	—	—
237	C4H2	BUTADIENE(BIACETYLENE)	—	—	—	—	—
238	C4H2O3	MALEIC ANHYDRIDE	64.4	1.4688	in dioxane	3.93	3.312
239	C4H4	VINYLACETYLENE	25.0	1.4161	gas	0.40	2.552
240	C4H4N2	SUCCINONITRILE	59.9	1.4173	in dioxane	3.83	3.361
241	C4H4O	FURAN	25.0	1.4187	gas	0.66	2.559
242	C4H4O2	DIKETENE	19.9	1.4379	gas	3.54	2.998
243	C4H4O3	SUCCINIC ANHYDRIDE	—	—	in benzene	3.83	3.281
244	C4H4O4	FUMARIC ACID	—	—	in dioxane	2.45	4.139
245	C4H4O4	MALEIC ACID	—	—	in dioxane	3.17	4.221
246	C4H4S	THIOPHENE	—	—	—	0.55	2.781
247	C4H5Cl	CHLOROPRENE	25.0	1.5257	gas	1.43	3.274
248	C4H5N	trans-CROTONITRILE	19.9	1.4583	gas	4.53	2.893
249	C4H5N	cis-CROTONITRILE	19.9	1.4225	gas	4.08	2.924
250	C4H5N	METHACRYLONITRILE	29.9	1.4134	gas	3.69	3.172
251	C4H5N	PYRROLE	25.0	1.3989	gas	1.84	2.567
252	C4H5N	VINYLCACETONITRILE	25.0	1.5078	—	—	2.979
253	C4H5NO2	METHYL CYANOACETATE	25.0	1.4050	—	—	3.733
254	C4H6	CYCLOBUTENE	25.0	1.4166	—	—	—
255	C4H6	1,2-BUTADIENE	—	—	gas	0.40	2.724
256	C4H6	1,3-BUTADIENE	1.4	1.4205	gas	0.00	2.602
257	C4H6	DIMETHYLACETYLENE	-25.2	1.4293	gas	—	2.519
258	C4H6	ETHYLACETYLENE	25.0	1.3893	gas	0.81	2.770
259	C4H6Cl2	1,3-DICHLORO-trans-2-BUTENE	—	—	in benzene	2.15	4.074
260	C4H6Cl2	1,4-DICHLORO-cis-2-BUTENE	25.0	1.4695	—	—	3.820
261	C4H6Cl2	1,4-DICHLORO-trans-2-BUTENE	25.0	1.4887	—	—	3.832
262	C4H6Cl2	3,4-DICHLORO-1-BUTENE	25.0	1.4863	—	—	3.934
263	C4H6O	trans-CROTONALDEHYDE	25.0	1.4615	gas	3.67	3.087
264	C4H6O	2,5-DIHYDROFURAN	19.9	1.4373	in benzene	1.54	2.580
265	C4H6O	DIVINYL ETHER	25.0	1.4340	in benzene	1.07	2.951
266	C4H6O	METHACROLEIN	—	—	gas	2.68	3.121
267	C4H6O2	2-BUTYNE-1,4-DIOL	19.9	1.4169	in benzene	2.63	3.715
268	C4H6O2	gamma-BUTYROLACTONE	25.0	1.4500	gas	3.82	2.642
269	C4H6O2	cis-CROTONIC ACID	25.0	1.4348	—	—	3.342
270	C4H6O2	trans-CROTONIC ACID	19.9	1.4456	—	—	3.493
271	C4H6O2	METHACRYLIC ACID	79.9	1.4228	in benzene	2.13	3.412
272	C4H6O2	METHYL ACRYLATE	25.0	1.4288	in benzene	1.65	3.280
273	C4H6O2	VINYL ACETATE	25.0	1.4003	—	—	2.969
274	C4H6O3	ACETIC ANHYDRIDE	25.0	1.3934	gas	1.79	3.579
275	C4H6O4	SUCCINIC ACID	19.9	1.3892	gas	2.20	4.159
276	C4H6O5	DIGLYCOLIC ACID	24.9	1.3373	gas	—	4.475
277	C4H6O5	MALIC ACID	—	—	gas	3.12	4.209
278	C4H6O6	TARTARIC ACID	25.0	1.3516	in dioxane	3.24	4.289
279	C4H7N	n-BUTYRONITRILE	—	—	gas	4.07	3.088
280	C4H7N	ISOBUTYRONITRILE	25.0	1.3820	gas	4.29	3.211
281	C4H7NO	ACETONE CYANOHYDRIN	25.0	1.3712	in benzene	3.17	3.344
282	C4H7NO	2-METHACRYLAMIDE	—	—	—	—	3.380
283	C4H7NO	3-METHOXYPROPIONITRILE	—	—	—	—	3.387
284	C4H7NO	2-PYRROLIDONE	19.9	1.4032	—	—	3.074
285	C4H8	1-BUTENE	25.0	1.4860	in benzene	3.10	2.762
286	C4H8	cis-2-BUTENE	-125.2	1.3803	gas	0.34	2.833
287	C4H8	trans-2-BUTENE	-25.2	1.3842	gas	0.00	2.734
288	C4H8	CYCLOBUTANE	-25.2	1.3932	gas	0.00	2.450
289	C4H8	ISOBUTENE	25.0	1.3620	gas	0.50	2.875
290	C4H8Br2	1,2-DIBROMOBUTANE	-25.2	1.3926	—	—	—
291	C4H8Br2	2,3-DIBROMOBUTANE	25.0	1.5125	—	—	—
292	C4H8Cl2	1,4-DICHLOROBUTANE	25.0	1.5125	—	—	—
293	C4H8I2	1,2-DIIODOBUTANE	25.0	1.4522	gas	2.22	3.760
294	C4H8O	n-BUTYRALDEHYDE	25.0	1.6000	—	—	—
295	C4H8O	ISOBUTYRALDEHYDE	25.0	1.3766	gas	2.72	3.185
296	C4H8O	1,2-EPOXYBUTANE	25.0	1.3698	gas	2.70	3.176
297	C4H8O	METHYL ETHYL KETONE	25.0	1.3810	in benzene	2.01	2.960
298	C4H8O	ETHYL VINYL ETHER	25.0	1.3764	benzene/dioxane	2.76	3.135
299	C4H8O	TETRAHYDROFURAN	25.0	1.3729	gas	1.27	2.940
300	C4H8O2	cis-2-BUTENE-1,4-DIOL	25.0	1.4050	gas	1.83	2.894
301	C4H8O2	trans-2-BUTENE-1,4-DIOL	25.0	1.4716	in benzene	2.50	3.516
302	C4H8O2	ISOBUTYRIC ACID	—	—	in benzene	2.47	3.530
303	C4H8O2	n-BUTYRIC ACID	25.0	1.3908	liquid	1.09	3.444
304	C4H8O2	1,4-DIOXANE	25.0	1.3958	liquid	1.23	3.610
305	C4H8O2	ETHYL ACETATE	25.0	1.4202	gas	0.00	3.017
306	C4H8O2	METHYL PROPIONATE	25.0	1.3704	gas	1.78	3.468
307	C4H8O2	n-PROPYL FORMATE	25.0	1.3742	in benzene	1.70	3.490
308	C4H8O2S	SULFOLANE	25.0	1.3750	in benzene	1.91	3.364
309	C4H8S	TETRAHYDROTHIOPHENE	19.9	1.4780	in benzene	4.69	3.309
310	C4H9Br	1-BROMOBUTANE	25.0	1.5074	in benzene	1.90	2.898
311	C4H9Br	2-BROMOBUTANE	25.0	1.4378	gas	2.08	3.132
312	C4H9Cl	n-BUTYL CHLORIDE	25.0	1.4342	gas	2.23	3.123
			25.0	1.4001	gas	2.05	3.338