

# Appendix C

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## FIGURES

- C.1 Dynamic or absolute viscosity of liquids
- C.2 Dynamic or absolute viscosity of gases and vapors at 1 atm

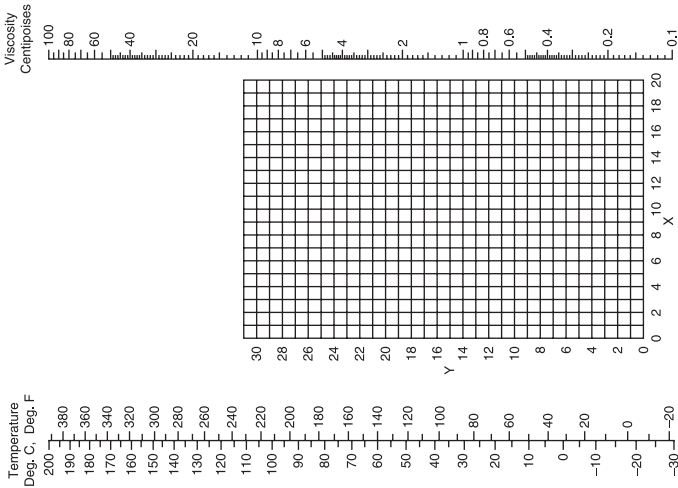
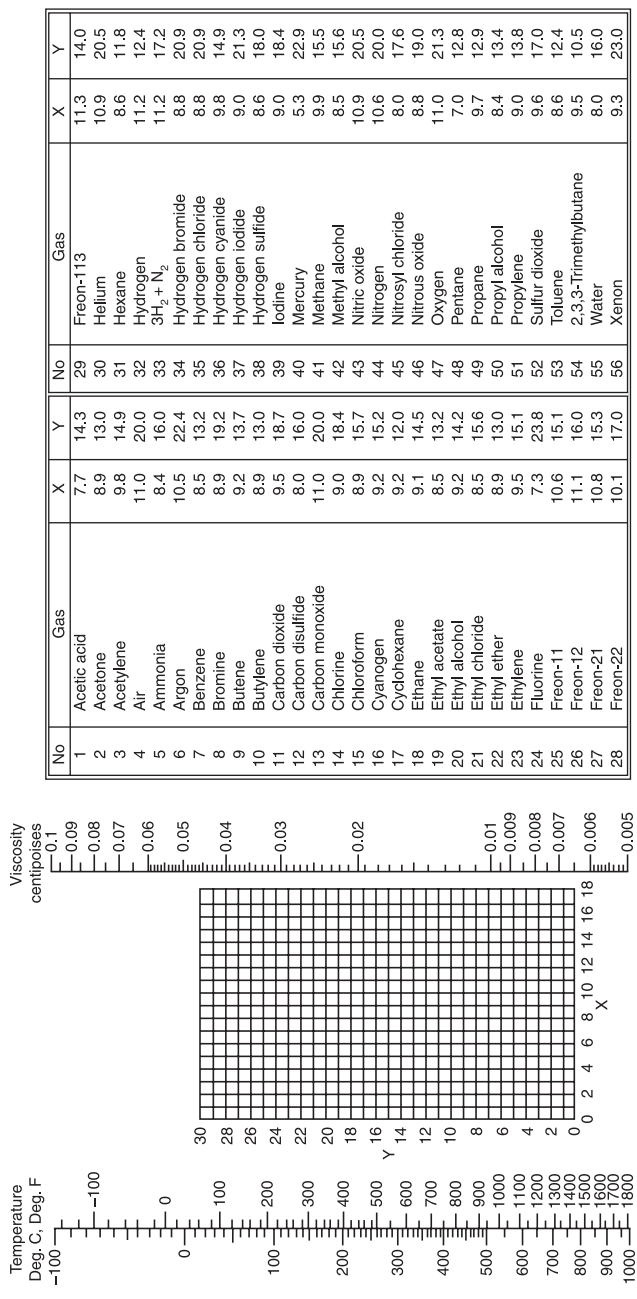


Figure C.1 Dynamic or absolute viscosity of liquids.

No	Liquid	X	Y	No	Liquid	X	Y
1	Acetaldehyde	15.2	4.8	56	Freon-22	17.2	4.7
2	Acetic acid, 100%	12.1	14.2	57	Freon-113	12.5	11.4
3	Acetic acid, 70%	9.5	17.0	58	Glycerol, 100%	2.0	30.0
4	Acetic anhydride	12.7	12.8	59	Glycerol, 50%	6.9	19.6
5	Acetone, 100%	14.5	7.2	60	Heptane	14.1	8.4
6	Acetone, 35%	7.9	15.0	61	Hexane	14.7	7.0
7	Allyl alcohol	10.2	14.3	62	Hydrochloric acid, 31.5%	13.0	16.6
8	Ammonia, 100%	10.1	18.1	63	Isobutyl alcohol	14.1	16.1
9	Ammonia, 25%	10.1	13.9	64	Isobutyl alcohol	12.2	14.4
10	Amyl acetate	11.8	12.5	65	Isopropyl alcohol	8.2	16.0
11	Amyl alcohol	7.5	18.4	66	Kerosene	10.2	16.9
12	Aniline	8.1	18.7	67	Linseed oil, raw	7.5	27.2
13	Anisole	12.3	13.5	68	Mercury	18.4	16.4
14	Arsenic trichloride	13.9	14.5	69	Methanol, 100%	12.4	10.5
15	Benzene	12.5	10.9	70	Methanol, 90%	12.3	11.8
16	Bimethyl oxalate	15.8	15.8	71	Methanol, 40%	7.8	15.5
17	Biphenyl	12.0	15.3	72	Methyl acetate	15.2	8.2
18	Bromo-CH <sub>2</sub> , 25%	10.2	16.3	73	Methyl ethyl ketone	14.2	8.2
19	Bromo-CH <sub>2</sub> , 25%	10.2	16.3	74	Methyl isobutyl ketone	13.9	8.6
20	Bromine	14.2	13.2	75	Naphthalene	7.9	18.1
21	Bromoluene	20.0	15.9	76	Nitric acid, 95%	12.8	13.8
22	Butyl acetate	12.3	11.0	77	Nitric acid, 60%	10.8	17.0
23	Butyl alcohol	12.1	17.2	78	Nitrobenzene	10.6	16.2
24	Butyric acid	11.6	15.3	79	Nitrotoluene	11.0	17.0
25	Carbon dioxide	16.1	7.5	80	Octane	13.7	10.0
26	Carbon disulfide	12.7	13.1	81	Octyl alcohol	6.6	21.1
27	Carbon tetrachloride	12.7	13.1	82	Pentachloroethane	10.9	15.3
28	Chlorobenzene	14.4	10.2	83	Phenol	14.5	14.5
29	Chloroform	14.4	10.2	84	Phenyl acetate	16.9	20.6
30	Chlorosulfonic acid	11.2	18.1	85	Phosphorus tribromide	13.8	16.7
31	<i>o</i> -Chlorotoluene	13.0	13.3	86	Phosphoric acid	16.2	10.9
32	<i>m</i> -Chlorotoluene	13.3	12.5	87	Phosphoric acid, 80%	12.8	13.8
33	<i>p</i> -Chlorotoluene	13.3	12.5	88	Propyl alcohol	9.1	16.5
34	<i>m</i> -Cresol	2.5	20.8	89	Propyl bromide	14.5	9.6
35	Cyclohexanol	2.9	24.3	90	Propyl iodide	14.4	7.5
36	Dibromoethane	12.7	15.8	91	Propyl iodide	14.1	11.6
37	Dichloroethane	13.2	8.2	92	Sodium hydroxide, 50%	16.4	25.9
38	Diethyl ether	11.0	16.4	93	Sodium hydroxide, 25%	13.5	12.8
39	Diethyl oxalate	11.0	16.4	94	Stannic chloride	13.5	12.8
40	Dipropyl oxalate	10.3	17.7	95	Sulfur dioxide	15.2	7.1
41	Ethyl acetate	13.7	9.1	96	Sulfuric acid, 110%	7.2	27.4
42	Ethyl alcohol, 100%	10.5	13.8	97	Sulfuric acid, 98%	7.0	24.8
43	Ethyl alcohol, 95%	9.8	14.3	98	Sulfuric acid, 60%	10.2	21.3
44	Ethyl alcohol, 40%	6.5	16.6	99	Sulfolyl chloride	15.2	12.4
45	Ethyl bromide	13.2	11.5	100	Tetrachloroethane	11.9	15.7
46	Ethyl chloride	14.5	8.1	101	Tetrachloroethylene	14.2	12.7
47	Ethyl iodide	14.5	5.0	102	Titanium tetrachloride	10.1	12.3
48	Ethyl mercaptan	14.8	5.0	103	Triethylamine	13.7	10.4
49	Ethyl formate	14.2	8.4	104	Trichloroethylene	14.8	10.5
50	Ethyl iodide	14.7	10.3	105	Turpentine	11.5	14.9
51	Ethyl glycol	6.0	23.6	106	Vinyl acetate	14.0	8.8
52	Formic acid	10.7	15.8	107	Water	10.2	13.0
53	Freon-11	14.4	9.0	108	<i>o</i> -Xylene	13.5	12.1
54	Freon-11	16.8	5.6	109	<i>m</i> -Xylene	13.9	10.6
55	Freon-21	15.7	7.5	110	<i>p</i> -Xylene	13.9	10.9



**Figure C.2** Dynamic or absolute viscosity of gases and vapors at 1 atm.