

**Appendix A.8** Temperature (°C) versus vapor pressure for industrial volatile liquids (abstracted from Perry and Chilton, 1973).

<u>substance</u>	<u>1 mm</u>	<u>5 mm</u>	<u>10 mm</u>	<u>20 mm</u>	<u>40 mm</u>	<u>60 mm</u>	<u>100 mm</u>	<u>200 mm</u>	<u>400 mm</u>	<u>760 mm</u>
acetaldehyde	-81.5	-65.1	-56.8	-47.8	-37.8	-31.4	-22.6	-10.0	4.9	20.2
acetic acid	-17.2	6.3	17.5	29.9	43.0	51.7	63.0	80.0	99.0	118.1
acetic anhydride	1.7	24.8	36.0	48.3	62.1	70.8	82.2	100.0	119.8	139.6
acetone	-59.4	-40.5	-31.1	-20.8	-9.4	-2.0	7.7	22.7	39.5	56.5
acrolein	-64.5	-46.0	-36.7	-26.3	-15.0	-7.5	2.5	17.5	34.5	52.5
allyl alcohol	-20.0	0.2	10.5	21.7	33.4	40.3	50.0	64.5	80.2	96.6
aniline	34.8	57.9	69.4	82.0	96.7	106.0	119.9	140.1	161.9	184.4
benzene	-36.7	-19.6	-11.5	-2.6	7.6	15.4	26.1	42.2	60.6	80.1
carbon disulfide	-73.8	54.3	-44.7	-34.3	-22.5	-15.3	-5.1	10.4	28.0	46.5
carbon tetrachloride	-50.0	-30.0	-19.6	-8.2	4.3	12.3	23.0	38.3	57.8	76.7
chlorobenzene	-13.0	10.6	22.2	35.3	49.7	58.3	70.7	89.4	110.0	132.2
chloroform	-58.0	-39.1	-29.7	-19.0	-7.1	0.5	10.4	25.9	47.7	61.3
cyclohexane	-45.3	-25.4	-15.9	-5.0	6.7	14.7	25.5	42.0	60.8	80.7
dimethylamine	-87.7	-72.2	-64.6	-56.0	-46.7	-40.7	-32.6	-20.4	-7.1	7.4
diphenyl	70.6	101.8	117.0	134.2	152.5	165.2	180.7	204.2	229.2	254.9
ethyl acetate	-43.4	-23.5	-13.5	-3.0	9.1	16.6	27.0	42.0	59.3	77.1
ethyl acrylate	-29.5	-8.7	2.0	13.0	26.0	33.5	44.5	61.5	80.0	99.5
ethyl alcohol	-31.3	-12.0	-2.3	8.0	19.0	26.0	34.9	48.4	63.5	78.4
ethyl benzene	-9.8	13.9	25.9	38.6	52.8	61.8	74.1	92.7	113.8	136.2
ethyl chloride	-89.8	-73.9	-65.8	-56.8	-47.0	-40.6	-32.0	-18.6	-3.9	12.3
ethyl formate	-60.5	-42.2	-33.0	-22.7	-11.5	-4.3	5.4	20.0	37.1	54.3
ethyl mercaptan	-76.7	-59.1	-50.2	-40.7	-29.8	-22.4	-13.0	1.5	17.7	35.0
ethylamine	-82.3	-66.4	-58.3	-48.6	-39.8	-33.4	-25.1	-12.3	2.0	16.6
ethylene dibromide	-27.0	4.7	18.6	32.7	48.0	57.9	70.4	89.8	110.1	131.5
ethylene dichloride	-44.5	-24.0	-13.6	-2.6	10.0	18.1	29.4	45.7	64.0	82.4
formaldehyde	-	-	-88.0	-79.6	-70.6	-65.0	-57.3	-46.0	-33.0	-19.5
formic acid	-20.0	-5.0	2.1	10.3	24.0	32.4	43.8	61.4	80.3	100.6
furfural	18.5	42.6	54.8	67.8	82.1	91.5	103.4	121.8	141.8	161.8
n-heptane	-34.0	-12.7	-2.1	9.5	22.3	30.6	41.8	58.7	78.0	98.4
hexachloroethane	32.7	49.8	73.5	87.6	102.3	112.0	124.2	143.1	163.8	185.6
n-hexane	-53.9	-34.5	-25.0	-14.1	-2.3	5.4	15.8	31.6	49.6	68.7

**Appendix A.8**(continued)

<u>substance</u>	<u>1 mm</u>	<u>5 mm</u>	<u>10 mm</u>	<u>20 mm</u>	<u>40 mm</u>	<u>60 mm</u>	<u>100 mm</u>	<u>200 mm</u>	<u>400 mm</u>	<u>760 mm</u>
isobutyl acetate	-21.2	1.4	12.8	25.5	39.2	48.0	59.7	77.6	97.5	118.0
isobutyl alcohol	-9.0	11.6	21.7	32.4	44.1	51.7	61.5	75.9	91.4	108.0
isopropyl acetate	-38.3	-17.4	-7.2	4.2	17.0	25.1	35.7	51.7	69.8	89.0
isopropyl alcohol	-26.1	-7.0	2.4	12.7	23.8	30.5	39.5	53.0	67.8	82.5
methacrylic acid	25.5	48.5	60.0	72.7	86.4	95.3	106.6	123.9	142.5	161.0
methyl acetate	-57.2	-38.6	-29.3	-19.1	-7.9	-0.5	9.4	24.0	40.0	57.8
methyl acrylate	-43.7	-23.6	-13.5	-2.7	9.2	17.3	28.0	43.9	61.0	80.2
methyl alcohol	-44.0	-25.3	-16.2	-6.0	5.0	12.1	21.2	34.8	49.9	64.7
methyl chloride	-	-99.5	-92.4	-94.8	-76.0	-70.4	-63.0	-51.2	-38.0	-24.0
methyl formate	-74.2	-57.0	-48.6	-39.2	-28.7	-21.9	-12.9	0.8	16.0	32.0
methyl iodide	-	-55.0	-45.8	-35.6	-24.2	-16.9	-7.0	8.0	25.3	42.4
methylamine	-95.8	-81.3	-73.8	-65.9	-56.9	-51.3	-43.7	-32.4	-19.7	-6.3
methylene chloride	-70.0	-52.1	-43.3	-33.4	-22.3	-15.7	-6.3	8.0	24.1	40.7
naphthalene	52.6	74.2	85.8	101.7	119.3	130.2	145.5	167.7	193.2	217.9
nitrobenzene	44.4	71.6	84.9	99.3	115.4	125.8	139.9	161.2	185.8	210.6
nitroethane	-21.0	1.5	12.5	24.8	38.0	46.5	57.8	74.8	94.0	114.0
nitromethane	-29.0	-7.9	2.8	14.1	27.5	35.5	46.6	63.5	82.0	101.2
o-nitrotoluene	50.0	79.1	93.8	109.6	126.3	137.6	151.5	173.7	197.7	222.3
octane	-14.0	8.3	19.2	31.5	45.1	53.8	65.7	83.6	104.0	125.6
perchloroethylene	-20.6	2.4	13.8	26.3	40.1	49.2	61.3	79.8	100.0	120.8
phenol	40.1	62.5	73.8	86.0	100.1	108.4	121.4	139.0	160.0	181.9
n-propyl acetate	-26.7	-5.4	5.0	16.0	28.8	37.0	47.8	64.0	82.0	101.8
n-propyl alcohol	-15.0	5.0	14.7	25.3	36.4	43.5	52.8	66.8	82.0	97.8
propylene oxide	-75.0	-57.8	-49.0	-39.3	-28.4	-21.3	-12.0	2.1	17.8	34.5
pyridine	-18.9	2.5	13.2	24.8	38.0	46.8	57.8	75.0	95.6	115.4
styrene, monomer	-7.0	18.0	30.8	44.6	59.8	69.5	82.0	101.3	122.5	145.2
toluene	-26.7	-4.4	6.4	18.4	31.8	40.3	51.9	69.5	89.5	110.6
trichloroethylene	-43.8	-22.8	-12.4	-1.0	11.9	20.0	31.4	48.0	67.0	86.7
1, 2, 3-trichloropropane	9.0	33.7	46.0	59.3	74.0	83.6	96.1	115.6	137.0	158.0
o-xylene	-3.8	20.2	32.1	45.1	59.5	68.8	81.3	100.2	121.7	144.4