

3.1.3 Saturated Monoethers, C<sub>10</sub> - C<sub>12</sub>

Bis(1-ethylpropyl) ether

[56761-99-0]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

581

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	$784.8 \pm 1.0$	1959-van

Bis(1-methylbutyl) ether

[56762-00-6]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

582

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	$777.8 \pm 1.0$	1959-van

Bis(3-methylbutyl) ether

[544-01-4]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

583

Table 1. Coefficients of the polynomial expansion equation. Standard deviations (see introduction):  $\sigma_{\text{c,w}} = 6.4216 \cdot 10^{-1}$  (combined temperature ranges, weighted),  $\sigma_{\text{c,uw}} = 1.9283 \cdot 10^{-1}$  (combined temperature ranges, unweighted).

Coefficient	T = 273.15 to 373.15 K $\rho = A + BT + CT^2 + DT^3 + \dots$
A	$9.60708 \cdot 10^2$
B	$-4.65976 \cdot 10^{-1}$
C	$-5.67428 \cdot 10^{-4}$

Table 2. Experimental values with uncertainties and deviation from calculated values.

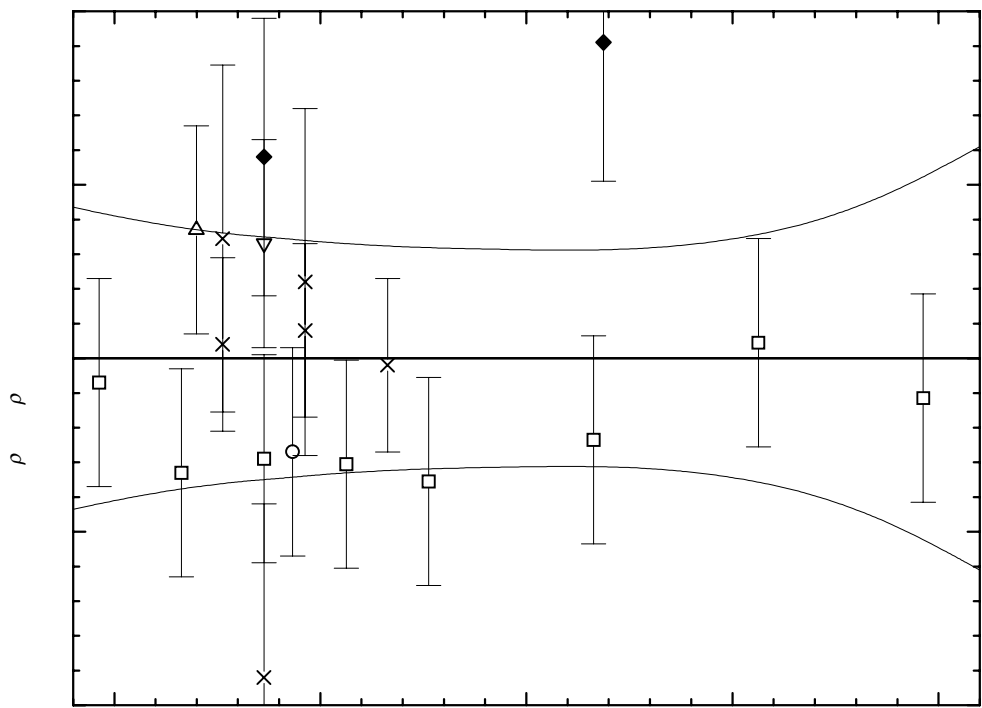
$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{cal}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)
288.15	$780.01 \pm 1.00$	0.69	1884-per(×)	296.65	$772.00 \pm 0.60$	-0.54	1935-par(○)
298.15	$771.78 \pm 1.00$	0.44	1884-per(×)	293.15	$776.50 \pm 0.80$	1.16	1948-vog-8(◆)
284.95	$782.60 \pm 0.60$	0.74	1891-gla(Δ)	334.35	$743.30 \pm 0.80$	1.82	1948-vog-8(◆)
273.15	$790.95 \pm 0.60$	-0.14	1932-bin/spo(□)	359.65	$722.10 \pm 1.00$	2.38	1948-vog-8 <sup>1)</sup>
283.15	$782.61 \pm 0.60$	-0.66	1932-bin/spo(□)	394.95	$694.10 \pm 2.00$	5.94	1948-vog-8 <sup>1)</sup>
293.15	$774.76 \pm 0.60$	-0.58	1932-bin/spo(□)	293.15	$773.50 \pm 1.00$	-1.84	1961-bel/shu-1(×)
303.15	$766.69 \pm 0.60$	-0.61	1932-bin/spo(□)	293.15	$776.00 \pm 0.60$	0.66	1978-nag/nak(∇)
313.15	$758.43 \pm 0.60$	-0.71	1932-bin/spo(□)	288.15	$779.40 \pm 0.50$	0.08	1985-oba/ood(×)
333.15	$742.02 \pm 0.60$	-0.47	1932-bin/spo(□)	298.15	$771.50 \pm 0.50$	0.16	1985-oba/ood(×)
353.15	$725.47 \pm 0.60$	0.09	1932-bin/spo(□)	308.15	$763.20 \pm 0.50$	-0.04	1985-oba/ood(×)
373.15	$707.59 \pm 0.60$	-0.23	1932-bin/spo(□)				

<sup>1)</sup> Not included in Fig. 1.

Further references: [1885-per-1, 1914-kre/mei, 1928-est].

cont.

Bis(3-methylbutyl) ether (cont.)



**Fig. 1.** The symbols show the deviation of the calculated from the experimental values from Table 2. The curves above and below the zero line indicate the calculated error region of the recommended values given in Table 3. The error bars represent the experimental errors. (Error bars smaller than the symbols are omitted for clarity of the figure.)

**Table 3.** Recommended values (fit to the reliable experimental values according to the equations  $\rho = A + BT + CT^2 + DT^3 + \dots$  or  $\rho = [1 + 1.75(1 - T/T_c)^{1/3} + 0.75(1 - T/T_c)][\rho_c + A(T_c - T) + B(T_c - T)^2 + C(T_c - T)^3 + D(T_c - T)^4]$ ).

$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$
270.00	793.53 ± 0.87	300.00	769.85 ± 0.67	350.00	728.11 ± 0.68
280.00	785.75 ± 0.77	310.00	761.73 ± 0.64	360.00	719.42 ± 0.78
290.00	777.85 ± 0.71	320.00	753.49 ± 0.63	370.00	710.62 ± 0.96
293.15	775.34 ± 0.70	330.00	745.14 ± 0.62	380.00	701.70 ± 1.22
298.15	771.34 ± 0.68	340.00	736.68 ± 0.63		

Butyl hexyl ether

[54459-71-1]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

584

**Table 1.** Fit with estimated *B* coefficient for 3 accepted points. Deviation  $\sigma_w = 0.094$ .

Coefficient	$\rho = A + BT$
<i>A</i>	1023.35
<i>B</i>	-0.820

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
288.15	787.0 ± 0.5	-0.07	1985-oba/ood
298.15	778.8 ± 0.5	-0.07	1985-oba/ood
308.15	770.8 ± 0.5	0.13	1985-oba/ood

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	793.7 ± 0.9
290.00	785.5 ± 0.6
293.15	783.0 ± 0.5
298.15	778.9 ± 0.5
310.00	769.1 ± 0.7

Butyl 1-methylpentyl ether

[101581-41-3]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

585

**Table 1.** Experimental and recommended values with uncertainties.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	786.0 ± 1.0	1957-bog/sho
293.15	787.4 ± 1.0	1958-sho/kul
293.15	788.4 ± 1.0	1958-sho/kul-1
293.15	787.3 ± 1.2	Recommended

1,1-Dimethylpropyl 3-methylbutyl ether

[500003-73-6]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

586

**Table 1.** Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	782.4 ± 1.0	1957-leb/mon

Dipentyl ether

[693-65-2]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

587

**Table 1.** Coefficients of the polynomial expansion equation. Standard deviations (see introduction):  $\sigma_{c,w} = 9.5495 \cdot 10^{-1}$  (combined temperature ranges, weighted),  $\sigma_{c,uw} = 2.7989 \cdot 10^{-1}$  (combined temperature ranges, unweighted).

Coefficient	T = 273.15 to 373.15 K $\rho = A + BT + CT^2 + DT^3 + \dots$
A	$9.66286 \cdot 10^2$
B	$-4.58303 \cdot 10^{-1}$
C	$-5.69101 \cdot 10^{-4}$

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

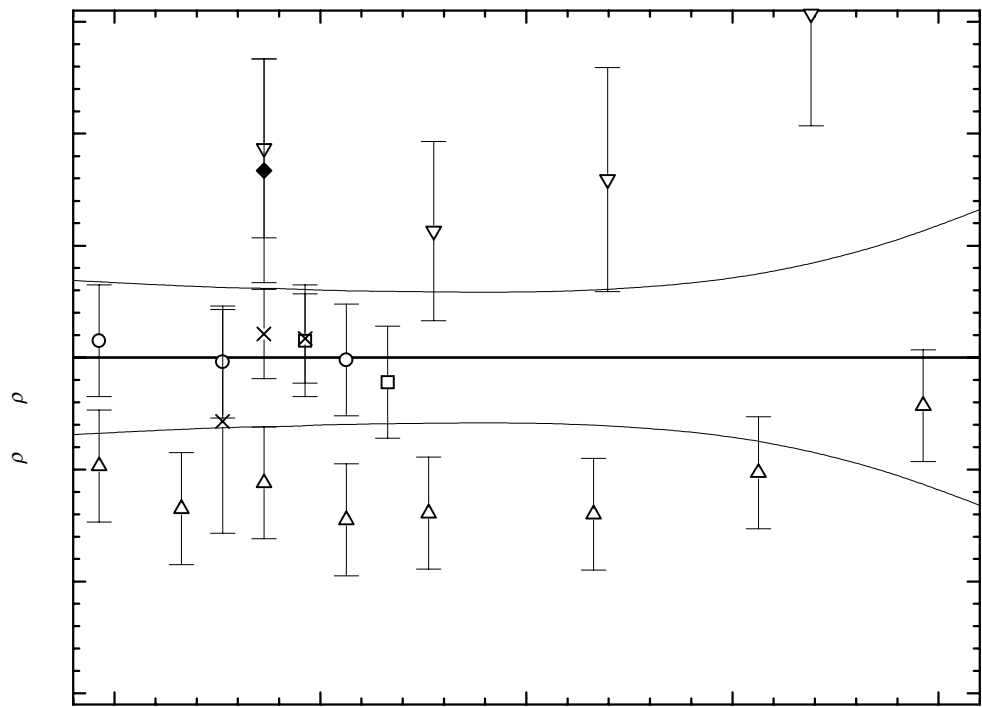
$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{e}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{i}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{st}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)
288.15	$786.40 \pm 1.00$	-0.57	1923-pop(×)	373.15	$715.60 \pm 0.50$	-0.43	1932-bin/spo(Δ)
273.15	$798.79 \pm 0.50$	0.15	1928-tim/mar(○)	293.15	$784.90 \pm 0.80$	1.87	1948-vog-8(∇)
288.15	$786.93 \pm 0.50$	-0.04	1928-tim/mar(○)	313.75	$767.60 \pm 0.80$	1.13	1948-vog-8(∇)
303.15	$775.03 \pm 0.50$	-0.02	1928-tim/mar(○)	334.85	$750.60 \pm 1.00$	1.59	1948-vog-8(∇)
273.15	$797.67 \pm 0.50$	-0.97	1932-bin/spo(Δ)	359.55	$731.00 \pm 1.00$	3.07	1948-vog-8(∇)
283.15	$789.54 \pm 0.50$	-1.35	1932-bin/spo(Δ)	293.15	$783.24 \pm 0.40$	0.21	1949-dre/mar(×)
293.15	$781.91 \pm 0.50$	-1.12	1932-bin/spo(Δ)	298.15	$779.22 \pm 0.40$	0.17	1949-dre/mar(×)
303.15	$773.60 \pm 0.50$	-1.45	1932-bin/spo(Δ)	293.15	$784.70 \pm 1.00$	1.67	1967-kar/bys(◆)
313.15	$765.57 \pm 0.50$	-1.39	1932-bin/spo(Δ)	288.15	$787.00 \pm 0.50$	0.15	1985-oba/ood
333.15	$749.04 \pm 0.50$	-1.40	1932-bin/spo(Δ)	298.15	$779.20 \pm 0.50$	0.15	1985-oba/ood(□)
353.15	$732.43 \pm 0.50$	-1.03	1932-bin/spo(Δ)	308.15	$770.80 \pm 0.50$	-0.22	1985-oba/ood(□)

**Further references:** [1925-sen].

**Table 3.** Recommended values (fit to the reliable experimental values according to the equations  $\rho = A + BT + CT^2 + DT^3 + \dots$  or  $\rho = [1 + 1.75(1 - T/T_c)^{1/3} + 0.75(1 - T/T_c)][\rho_c + A(T_c - T) + B(T_c - T)^2 + C(T_c - T)^3 + D(T_c - T)^4]$ ).

$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$
270.00	$801.06 \pm 0.69$	300.00	$777.58 \pm 0.60$	350.00	$736.17 \pm 0.70$
280.00	$793.34 \pm 0.65$	310.00	$769.52 \pm 0.59$	360.00	$727.54 \pm 0.84$
290.00	$785.52 \pm 0.62$	320.00	$761.35 \pm 0.58$	370.00	$718.80 \pm 1.04$
293.15	$783.03 \pm 0.62$	330.00	$753.07 \pm 0.59$	380.00	$709.95 \pm 1.32$
298.15	$779.05 \pm 0.61$	340.00	$744.68 \pm 0.63$		

cont.



**Fig. 1.** The symbols show the deviation of the calculated from the experimental values from Table 2. The curves above and below the zero line indicate the calculated error region of the recommended values given in Table 3. The error bars represent the experimental errors. (Error bars smaller than the symbols are omitted for clarity of the figure.)

Ethyl 1-ethylhexyl ether

[500020-94-0]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

588

**Table 1.** Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	$704.8 \pm 1.0$	1940-gri

Ethyl 1-methylheptyl ether

[63028-01-3]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

589

**Table 1.** Fit with estimated  $B$  coefficient for 5 accepted points. Deviation  $\sigma_w = 1.158$ .

Coefficient	$\rho = A + BT$
$A$	1020.66
$B$	-0.800

cont.

Ethyl 1-methylheptyl ether (cont.)

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
290.35	789.5 ± 1.0	1.12	1923-ken/mcn
312.85	771.9 ± 1.0	1.52	1923-ken/mcn
331.65	754.5 ± 1.0	-0.84	1923-ken/mcn
352.15	738.7 ± 1.0	-0.24	1923-ken/mcn
373.65	720.2 ± 1.0	-1.54	1923-ken/mcn

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$
290.00	788.7 ± 1.7	320.00	764.7 ± 1.5	360.00	732.7 ± 1.6
293.15	786.1 ± 1.7	330.00	756.7 ± 1.5	370.00	724.7 ± 1.6
298.15	782.1 ± 1.6	340.00	748.7 ± 1.5	380.00	716.7 ± 1.7
310.00	772.7 ± 1.5	350.00	740.7 ± 1.5		

Ethyl octyl ether [929-61-3] C<sub>10</sub>H<sub>22</sub>O MW = 158.28 590

**Table 1.** Coefficients of the polynomial expansion equation. Standard deviations (see introduction):  $\sigma_{\text{c,w}} = 8.0414 \cdot 10^{-1}$  (combined temperature ranges, weighted),  $\sigma_{\text{c,uw}} = 1.8789 \cdot 10^{-1}$  (combined temperature ranges, unweighted).

Coefficient	T = 273.15 to 351.45 K $\rho = A + BT + CT^2 + DT^3 + \dots$
A	1.01928 · 10 <sup>3</sup>
B	-7.97468 · 10 <sup>-1</sup>

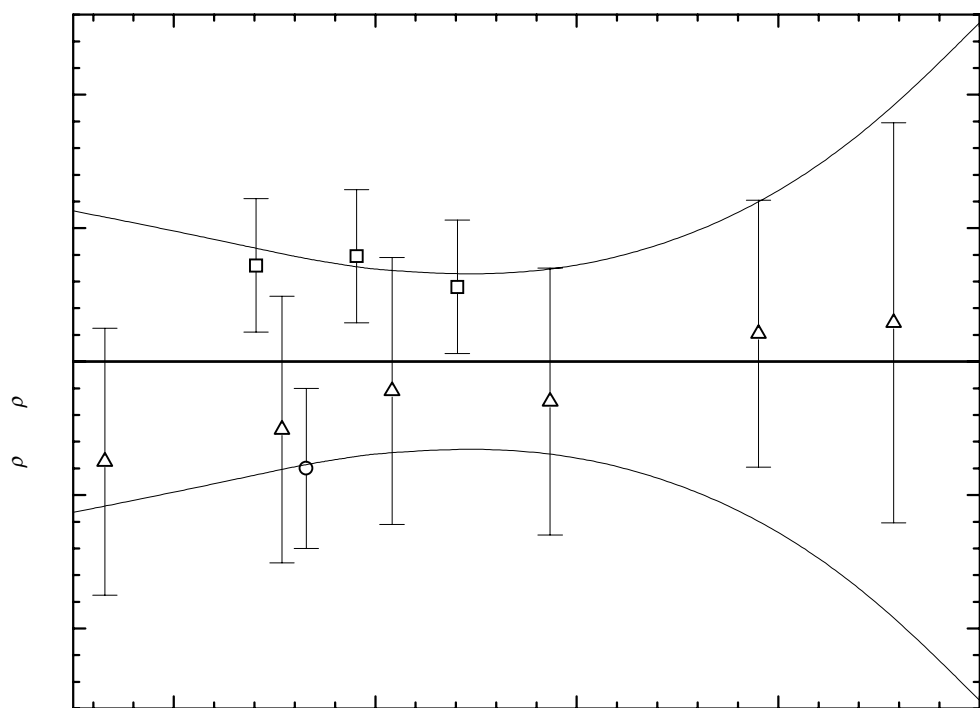
**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	Ref. (Symbol in Fig. 1)
273.15	800.70 ± 1.00	-0.75	1888-dob(Δ)	351.45	739.30 ± 1.50	0.29	1888-dob(Δ)
290.75	786.90 ± 1.00	-0.51	1888-dob(Δ)	293.15	784.70 ± 0.60	-0.80	1953-dev/pan(○)
301.65	778.50 ± 1.00	-0.22	1888-dob(Δ)	288.15	790.20 ± 0.50	0.72	1985-oba/ood(□)
317.35	765.90 ± 1.00	-0.30	1888-dob(Δ)	298.15	782.30 ± 0.50	0.79	1985-oba/ood(□)
338.05	749.90 ± 1.00	0.21	1888-dob(Δ)	308.15	774.10 ± 0.50	0.56	1985-oba/ood(□)

<sup>1)</sup> Not included in Fig. 1.

**Further references:** [1877-mos-1].

cont.



**Fig. 1.** The symbols show the deviation of the calculated from the experimental values from Table 2. The curves above and below the zero line indicate the calculated error region of the recommended values given in Table 3. The error bars represent the experimental errors. (Error bars smaller than the symbols are omitted for clarity of the figure.)

**Table 3.** Recommended values (fit to the reliable experimental values according to the equations  $\rho = A + BT + CT^2 + DT^3 + \dots$  or  $\rho = [1 + 1.75(1 - T/T_c)^{1/3} + 0.75(1 - T/T_c)][\rho_c + A(T_c - T) + B(T_c - T)^2 + C(T_c - T)^3 + D(T_c - T)^4]$ ).

$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
270.00	803.96 ± 1.13	298.15	781.51 ± 0.71	330.00	756.11 ± 0.90
280.00	795.98 ± 0.98	300.00	780.03 ± 0.69	340.00	748.14 ± 1.25
290.00	788.01 ± 0.82	310.00	772.06 ± 0.64	350.00	740.16 ± 1.79
293.15	785.50 ± 0.77	320.00	764.09 ± 0.70	360.00	732.19 ± 2.54

1-Ethylheptyl methyl ether

[500004-21-7]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

591

**Table 1.** Fit with estimated *B* coefficient for 6 accepted points. Deviation  $\sigma_w = 0.507$ .

Coefficient	$\rho = A + BT$
<i>A</i>	1041.80
<i>B</i>	-0.840

cont.

1-Ethylheptyl methyl ether (cont.)

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
296.15	792.6 ± 1.0	-0.44	1924-ken/bar	361.15	738.4 ± 1.0	-0.04	1924-ken/bar
318.15	774.3 ± 1.0	-0.26	1924-ken/bar	376.15	726.0 ± 1.0	0.16	1924-ken/bar
340.15	757.1 ± 1.0	1.02	1924-ken/bar	403.15	702.7 ± 1.0	-0.46	1924-ken/bar

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
290.00	798.2 ± 1.6	330.00	764.6 ± 1.1	380.00	722.6 ± 1.2
293.15	795.6 ± 1.5	340.00	756.2 ± 1.0	390.00	714.2 ± 1.3
298.15	791.4 ± 1.4	350.00	747.8 ± 1.0	400.00	705.8 ± 1.4
310.00	781.4 ± 1.3	360.00	739.4 ± 1.1	410.00	697.4 ± 1.6
320.00	773.0 ± 1.2	370.00	731.0 ± 1.1		

Heptyl 1-methylethyl ether

[86724-25-6]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

592

**Table 1.** Fit with estimated *B* coefficient for 3 accepted points. Deviation  $\sigma_w = 0.047$ .

Coefficient	$\rho = A + BT$
<i>A</i>	1018.02
<i>B</i>	-0.820

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
288.15	781.7 ± 0.5	-0.03	1985-oba/ood
298.15	773.6 ± 0.5	0.07	1985-oba/ood
308.15	765.3 ± 0.5	-0.03	1985-oba/ood

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	788.4 ± 0.9
290.00	780.2 ± 0.6
293.15	777.6 ± 0.5
298.15	773.5 ± 0.4
310.00	763.8 ± 0.7



Heptyl propyl ether

[71112-89-5]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

593

**Table 1.** Coefficients of the polynomial expansion equation. Standard deviations (see introduction):  $\sigma_{c,w} = 2.9319 \cdot 10^{-1}$  (combined temperature ranges, weighted),  $\sigma_{c,uw} = 8.4870 \cdot 10^{-2}$  (combined temperature ranges, unweighted).

Coefficient	T = 273.15 to 428.25 K $\rho = A + BT + CT^2 + DT^3 + \dots$
A	$9.83764 \cdot 10^2$
B	$-5.86361 \cdot 10^{-1}$
C	$-3.29386 \cdot 10^{-4}$

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

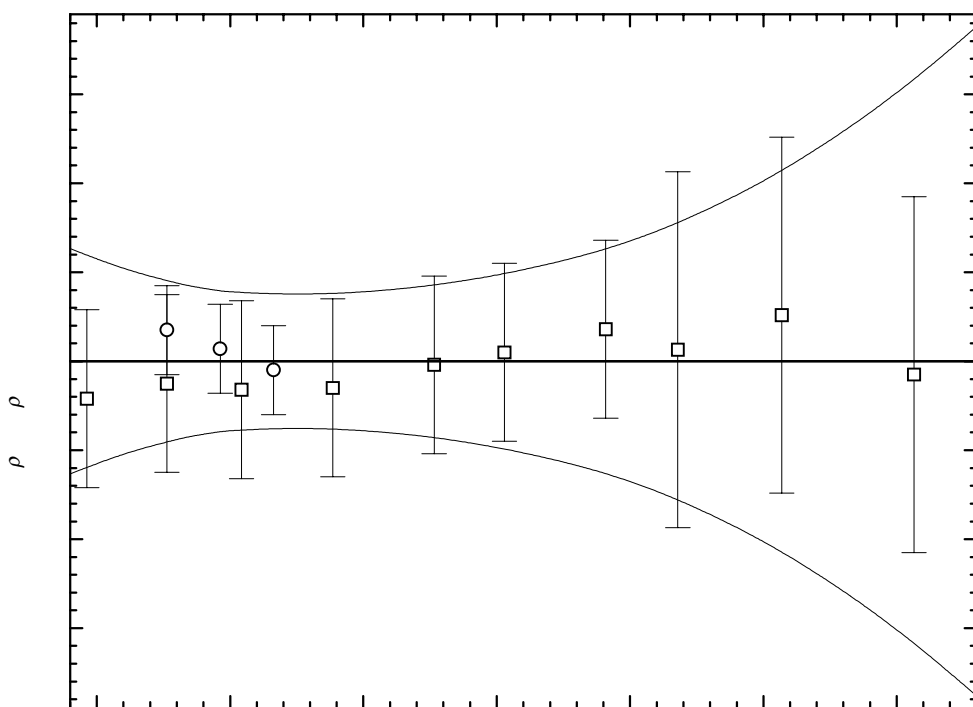
$\frac{T}{K}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)	$\frac{T}{K}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)
273.15	$798.60 \pm 1.00$	-0.42	1888-dob(□)	383.95	$710.20 \pm 2.00$	0.13	1888-dob(□)
288.15	$787.20 \pm 1.00$	-0.25	1888-dob(□)	403.45	$694.10 \pm 2.00$	0.52	1888-dob(□)
302.15	$776.20 \pm 1.00$	-0.32	1888-dob(□)	428.25	$672.10 \pm 2.00$	-0.15	1888-dob(□)
319.25	$762.70 \pm 1.00$	-0.30	1888-dob(□)	288.15	$787.80 \pm 0.50$	0.35	1985-oba/ood(○)
338.25	$747.70 \pm 1.00$	-0.04	1888-dob(□)	298.15	$779.80 \pm 0.50$	0.14	1985-oba/ood(○)
351.45	$737.10 \pm 1.00$	0.10	1888-dob(□)	308.15	$771.70 \pm 0.50$	-0.10	1985-oba/ood(○)
370.45	$721.70 \pm 1.00$	0.36	1888-dob(□)				

<sup>1)</sup> Not included in Fig. 1.

**Table 3.** Recommended values (fit to the reliable experimental values according to the equations  $\rho = A + BT + CT^2 + DT^3 + \dots$  or  $\rho = [1 + 1.75(1 - T/T_c)^{1/3} + 0.75(1 - T/T_c)][\rho_c + A(T_c - T) + B(T_c - T)^2 + C(T_c - T)^3 + D(T_c - T)^4]$ ).

$\frac{T}{K}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{K}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{K}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$
270.00	$801.43 \pm 1.30$	320.00	$762.40 \pm 0.78$	390.00	$704.98 \pm 1.76$
280.00	$793.76 \pm 1.06$	330.00	$754.39 \pm 0.82$	400.00	$696.52 \pm 2.07$
290.00	$786.02 \pm 0.90$	340.00	$746.32 \pm 0.89$	410.00	$687.99 \pm 2.44$
293.15	$783.57 \pm 0.86$	350.00	$738.19 \pm 0.99$	420.00	$679.39 \pm 2.86$
298.15	$779.66 \pm 0.81$	360.00	$729.99 \pm 1.12$	430.00	$670.73 \pm 3.33$
300.00	$778.21 \pm 0.80$	370.00	$721.72 \pm 1.28$	440.00	$662.00 \pm 3.86$
310.00	$770.34 \pm 0.77$	380.00	$713.38 \pm 1.49$		

cont.



Hexyl 1-methylpropyl ether	[65270-00-0]	C <sub>10</sub> H <sub>22</sub> O	MW = 158.28	594
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Coefficient	$\rho = A + BT$
$A$	1017.33
$B$	-0.810

$T$ K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$	$\rho_{\text{exp}} - \rho_{\text{calc}}$ $\text{kg} \cdot \text{m}^{-3}$	Ref.
288.15	$783.9 \pm 0.5$	-0.03	1985-oba/ood
298.15	$775.8 \pm 0.5$	-0.03	1985-oba/ood
308.15	$767.8 \pm 0.5$	0.07	1985-oba/ood

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	790.5 ± 0.9
290.00	782.4 ± 0.6
293.15	779.9 ± 0.5
298.15	775.8 ± 0.4
310.00	766.2 ± 0.7

Hexyl 2-methylpropyl ether

[92097-06-8]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

595

**Table 1.** Fit with estimated *B* coefficient for 3 accepted points. Deviation σ<sub>w</sub> = 0.000.

Coefficient	$\rho = A + BT$
<i>A</i>	1012.70
<i>B</i>	-0.810

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
288.15	779.3 ± 0.5	-0.00	1985-oba/ood
298.15	771.2 ± 0.5	0.00	1985-oba/ood
308.15	763.1 ± 0.5	0.00	1985-oba/ood

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	785.9 ± 0.9
290.00	777.8 ± 0.6
293.15	775.2 ± 0.5
298.15	771.2 ± 0.4
310.00	761.6 ± 0.7

Methyl 1-methyloctyl ether

[500003-72-5]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

596

**Table 1.** Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	822.8 ± 2.0	1906-van

Methyl 2-methyloctyl ether

[500003-71-4]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

597

**Table 1.** Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{T}{\text{K}}$	Ref.
295.15	792.0 ± 2.0	1935-gre-2

Methyl nonyl ether

[7289-51-2]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

598

**Table 1.** Fit with estimated *B* coefficient for 3 accepted points. Deviation  $\sigma_w = 0.094$ .

Coefficient	$\rho = A + BT$
<i>A</i>	1027.19
<i>B</i>	-0.800

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
288.15	796.60 ± 0.3	-0.07	1985-oba/ood
298.15	788.60 ± 0.3	-0.07	1985-oba/ood
308.15	780.80 ± 0.3	0.13	1985-oba/ood

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	803.2 ± 0.8
290.00	795.2 ± 0.4
293.15	792.7 ± 0.3
298.15	788.7 ± 0.3
310.00	779.2 ± 0.6

Methyl 2-propylhexyl ether

[99867-98-8]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

599

**Table 1.** Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	804.3 ± 1.0	1959-var/bad

3-Methylbutyl pentyl ether

[92097-07-9]

C<sub>10</sub>H<sub>22</sub>O

MW = 158.28

600

**Table 1.** Fit with estimated *B* coefficient for 3 accepted points. Deviation  $\sigma_w = 0.047$ .

Coefficient	$\rho = A + BT$
<i>A</i>	1016.53
<i>B</i>	-0.810

cont.

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	786.0 ± 2.0	6.92	1957-gol/kon <sup>1)</sup>
288.15	783.1 ± 0.5	-0.03	1985-oba/ood
298.15	775.1 ± 0.5	0.07	1985-oba/ood
308.15	766.9 ± 0.5	-0.03	1985-oba/ood

<sup>1)</sup> Not included in calculation of linear coefficients.

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	789.7 ± 0.8
290.00	781.6 ± 0.5
293.15	779.1 ± 0.4
298.15	775.0 ± 0.3
310.00	765.4 ± 0.6

Butyl heptyl ether

[71112-90-8]

C<sub>11</sub>H<sub>24</sub>O

MW = 172.31

601

**Table 1.** Fit with estimated *B* coefficient for 3 accepted points. Deviation σ<sub>w</sub> = 0.047.

Coefficient	$\rho = A + BT$
<i>A</i>	1017.62
<i>B</i>	-0.780

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
288.15	792.8 ± 0.5	-0.07	1985-oba/ood
298.15	785.1 ± 0.5	0.03	1985-oba/ood
308.15	777.3 ± 0.5	0.03	1985-oba/ood

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	799.2 ± 0.9
290.00	791.4 ± 0.6
293.15	789.0 ± 0.5
298.15	785.1 ± 0.4
310.00	775.8 ± 0.7

Decyl methyl ether

[7289-52-3]

C<sub>11</sub>H<sub>24</sub>O

MW = 172.31

602

**Table 1.** Fit with estimated *B* coefficient for 5 accepted points. Deviation σ<sub>w</sub> = 0.103.

Coefficient	$\rho = A + BT$
<i>A</i>	1026.19
<i>B</i>	-0.780

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	797.3 ± 1.0	-0.23	1927-tal	288.15	801.5 ± 0.5	0.07	1985-oba/ood
293.15	797.3 ± 1.0	-0.23	1932-kom/tal	298.15	793.6 ± 0.5	-0.03	1985-oba/ood
293.15	802.2 ± 3.0	4.67	1949-set/kur <sup>1)</sup>	308.15	785.9 ± 0.5	0.07	1985-oba/ood
293.15	800.2 ± 2.0	2.67	1950-set <sup>1)</sup>				

<sup>1)</sup> Not included in calculation of linear coefficients.

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	807.8 ± 0.8
290.00	800.0 ± 0.5
293.15	797.5 ± 0.5
298.15	793.6 ± 0.5
310.00	784.4 ± 0.7

Ethyl 1-ethylheptyl ether

[500004-22-8]

C<sub>11</sub>H<sub>24</sub>O

MW = 172.31

603

**Table 1.** Fit with estimated *B* coefficient for 6 accepted points. Deviation σ<sub>w</sub> = 0.503.

Coefficient	$\rho = A + BT$
<i>A</i>	1024.03
<i>B</i>	-0.790

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	Ref.
295.15	790.1 ± 1.0	-0.76	1924-ken/bar	353.15	745.3 ± 1.0	0.26	1924-ken/bar
313.15	776.9 ± 1.0	0.26	1924-ken/bar	378.15	725.6 ± 1.0	0.31	1924-ken/bar
334.15	760.6 ± 1.0	0.55	1924-ken/bar	403.15	704.9 ± 1.0	-0.64	1924-ken/bar

cont.

**Table 3.** Recommended values.

$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$
290.00	794.9 ± 1.5	330.00	763.3 ± 1.1	380.00	723.8 ± 1.2
293.15	792.4 ± 1.5	340.00	755.4 ± 1.0	390.00	715.9 ± 1.4
298.15	788.5 ± 1.4	350.00	747.5 ± 1.0	400.00	708.0 ± 1.5
310.00	779.1 ± 1.3	360.00	739.6 ± 1.1	410.00	700.1 ± 1.6
320.00	771.2 ± 1.2	370.00	731.7 ± 1.1		

Ethyl 1-methyloctyl ether

[500003-74-7]

C<sub>11</sub>H<sub>24</sub>O

MW = 172.31

604

Table 1. Experimental value with uncertainty.

$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	Ref.
293.15	819.3 ± 2.0	1906-van

Ethyl nonyl ether

[16979-32-1]

C<sub>11</sub>H<sub>24</sub>O

MW = 172.31

605

Table 1. Fit with estimated *B* coefficient for 3 accepted points. Deviation σ<sub>w</sub> = 0.082.

Coefficient	$\rho = A + BT$
<i>A</i>	1023.34
<i>B</i>	-0.790

Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
288.15	795.6 ± 0.5	-0.10	1985-oba/ood
298.15	787.9 ± 0.5	0.10	1985-oba/ood
308.15	779.9 ± 0.5	0.00	1985-oba/ood

Table 3. Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	802.1 ± 0.9
290.00	794.2 ± 0.6
293.15	791.7 ± 0.5
298.15	787.8 ± 0.5
310.00	778.4 ± 0.7

Hexyl pentyl ether

[32357-83-8]

C<sub>11</sub>H<sub>24</sub>O

MW = 172.31

606

Table 1. Fit with estimated *B* coefficient for 3 accepted points. Deviation σ<sub>w</sub> = 0.047.

Coefficient	$\rho = A + BT$
<i>A</i>	1019.91
<i>B</i>	-0.790

cont.

Hexyl pentyl ether (cont.)

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	Ref.
288.15	792.3 ± 0.5	0.03	1985-oba/ood
298.15	784.3 ± 0.5	-0.07	1985-oba/ood
308.15	776.5 ± 0.5	0.03	1985-oba/ood

**Table 3.** Recommended values.

$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	798.7 ± 0.9
290.00	790.8 ± 0.6
293.15	788.3 ± 0.5
298.15	784.4 ± 0.4
310.00	775.0 ± 0.7

1-Methylethyl octyl ether

[68975-45-1]

C<sub>11</sub>H<sub>24</sub>O

MW = 172.31

607

**Table 1.** Fit with estimated B coefficient for 4 accepted points. Deviation sw = 0.480.

Coefficient	$\rho = A + BT$
A	1018.28
B	-0.800

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	Ref.
293.15	782.1 ± 1.0	-1.66	1953-dev/pan
288.15	787.9 ± 0.5	0.14	1985-oba/ood
298.15	779.9 ± 0.5	0.14	1985-oba/ood
308.15	771.9 ± 0.5	0.14	1985-oba/ood

**Table 3.** Recommended values.

$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	794.3 ± 1.0
290.00	786.3 ± 0.8
293.15	783.8 ± 0.8
298.15	779.8 ± 0.7
310.00	770.3 ± 0.9



1-Methylheptyl propyl ether

[500004-24-0]

C<sub>11</sub>H<sub>24</sub>O

MW = 172.31

608

Table 1. Fit with estimated B coefficient for 4 accepted points. Deviation  $\sigma_w = 0.708$ .

Coefficient	$\rho = A + BT$
A	1025.99
B	-0.800

Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
285.15	797.1 ± 1.0	-0.77	1923-ken/mcn
334.15	759.8 ± 1.0	1.13	1923-ken/mcn
353.15	743.5 ± 1.0	0.03	1923-ken/mcn
369.15	730.3 ± 1.0	-0.37	1923-ken/mcn

Table 3. Recommended values.

$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$
280.00	802.0 ± 1.6	310.00	778.0 ± 1.2	350.00	746.0 ± 1.2
290.00	794.0 ± 1.5	320.00	770.0 ± 1.2	360.00	738.0 ± 1.2
293.15	791.5 ± 1.4	330.00	762.0 ± 1.1	370.00	730.0 ± 1.3
298.15	787.5 ± 1.4	340.00	754.0 ± 1.1		

Octyl propyl ether

[29379-41-7]

C<sub>11</sub>H<sub>24</sub>O

MW = 172.31

609

Table 1. Coefficients of the polynomial expansion equation. Standard deviations (see introduction):  $\sigma_{c,w} = 7.7797 \cdot 10^{-1}$  (combined temperature ranges, weighted),  $\sigma_{c,uw} = 1.9914 \cdot 10^{-1}$  (combined temperature ranges, unweighted).

Coefficient	T = 273.15 to 427.25 K $\rho = A + BT + CT^2 + DT^3 + \dots$
A	$9.92215 \cdot 10^2$
B	$-6.14720 \cdot 10^{-1}$
C	$-2.63243 \cdot 10^{-4}$

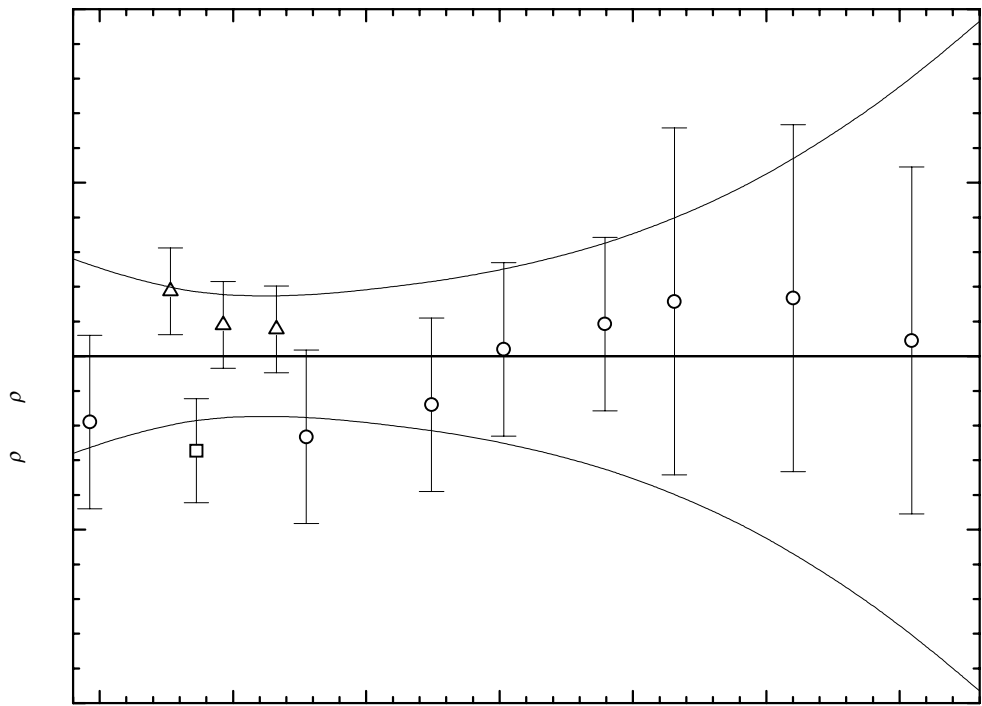
Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)
273.15	803.90 ± 1.00	-0.76	1888-dob(○)	405.05	700.70 ± 2.00	0.67	1888-dob(○)
313.75	772.50 ± 1.00	-0.93	1888-dob(○)	427.25	681.70 ± 2.00	0.18	1888-dob(○)
337.25	754.40 ± 1.00	-0.56	1888-dob(○)	293.15	788.30 ± 0.60	-1.09	1953-dev/pan(□)
350.75	744.30 ± 1.00	0.08	1888-dob(○)	288.25	793.90 ± 0.50	0.75	1985-oba/ood(Δ)
369.75	729.30 ± 1.00	0.37	1888-dob(○)	298.15	785.90 ± 0.50	0.36	1985-oba/ood(Δ)
382.75	719.00 ± 2.00	0.63	1888-dob(○)	308.15	778.10 ± 0.50	0.31	1985-oba/ood(Δ)

<sup>1)</sup> Not included in Fig. 1.

cont.

Octyl propyl ether (cont.)



**Fig. 1.** The symbols show the deviation of the calculated from the experimental values from Table 2. The curves above and below the zero line indicate the calculated error region of the recommended values given in Table 3. The error bars represent the experimental errors. (Error bars smaller than the symbols are omitted for clarity of the figure.)

**Table 3.** Recommended values (fit to the reliable experimental values according to the equations  $\rho = A + BT + CT^2 + DT^3 + \dots$  or  $\rho = [1 + 1.75(1 - T/T_c)^{1/3} + 0.75(1 - T/T_c)][\rho_c + A(T_c - T) + B(T_c - T)^2 + C(T_c - T)^3 + D(T_c - T)^4]$ ).

$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$
270.00	807.05 ± 1.12	320.00	768.55 ± 0.73	390.00	712.44 ± 1.78
280.00	799.46 ± 0.91	330.00	760.69 ± 0.80	400.00	704.21 ± 2.09
290.00	791.81 ± 0.77	340.00	752.78 ± 0.88	410.00	695.93 ± 2.46
293.15	789.39 ± 0.74	350.00	744.82 ± 0.99	420.00	687.60 ± 2.87
298.15	785.54 ± 0.71	360.00	736.80 ± 1.13	430.00	679.21 ± 3.34
300.00	784.11 ± 0.70	370.00	728.73 ± 1.30	440.00	670.77 ± 3.86
310.00	776.35 ± 0.69	380.00	720.61 ± 1.52		

**Butyl 1-ethylheptyl ether** [500004-26-2] C<sub>12</sub>H<sub>26</sub>O MW = 186.34 610

**Table 1.** Fit with estimated *B* coefficient for 6 accepted points. Deviation σ<sub>w</sub> = 0.759.

Coefficient	$\rho = A + BT$
<i>A</i>	1031.60
<i>B</i>	-0.790

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
294.15	797.8 ± 1.0	-1.42	1924-ken/bar	355.15	751.8 ± 1.0	0.77	1924-ken/bar
314.15	783.5 ± 1.0	0.08	1924-ken/bar	382.15	730.2 ± 1.0	0.50	1924-ken/bar
334.15	768.2 ± 1.0	0.58	1924-ken/bar	402.15	713.4 ± 1.0	-0.50	1924-ken/bar

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
290.00	802.5 ± 1.6	330.00	770.9 ± 1.2	380.00	731.4 ± 1.3
293.15	800.0 ± 1.6	340.00	763.0 ± 1.2	390.00	723.5 ± 1.5
298.15	796.1 ± 1.5	350.00	755.1 ± 1.2	400.00	715.6 ± 1.6
310.00	786.7 ± 1.4	360.00	747.2 ± 1.2	410.00	707.7 ± 1.7
320.00	778.8 ± 1.3	370.00	739.3 ± 1.3		

**Butyl 1-methylheptyl ether** [110458-41-8] C<sub>12</sub>H<sub>26</sub>O MW = 186.34 611

**Table 1.** Fit with estimated *B* coefficient for 4 accepted points. Deviation σ<sub>w</sub> = 0.245.

Coefficient	$\rho = A + BT$
<i>A</i>	1026.32
<i>B</i>	-0.785

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
291.65	797.1 ± 1.0	-0.27	1923-ken/mcn
318.15	776.6 ± 1.0	0.03	1923-ken/mcn
343.15	756.8 ± 1.0	-0.14	1923-ken/mcn
408.15	706.3 ± 1.0	0.38	1923-ken/mcn

cont.

Butyl 1-methylheptyl ether (cont.)

Table 3. Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
290.00	798.7 ± 1.4	330.00	767.3 ± 0.9	380.00	728.0 ± 1.2
293.15	796.2 ± 1.3	340.00	759.4 ± 0.9	390.00	720.2 ± 1.4
298.15	792.3 ± 1.3	350.00	751.6 ± 0.9	400.00	712.3 ± 1.5
310.00	783.0 ± 1.1	360.00	743.7 ± 1.0	410.00	704.5 ± 1.7
320.00	775.1 ± 1.0	370.00	735.9 ± 1.1		

Butyl octyl ether [53839-23-9] C<sub>12</sub>H<sub>26</sub>O MW = 186.34 612

Table 1. Coefficients of the polynomial expansion equation. Standard deviations (see introduction):  $\sigma_{\text{c,w}} = 7.3518 \cdot 10^{-1}$  (combined temperature ranges, weighted),  $\sigma_{\text{c,uw}} = 2.1352 \cdot 10^{-1}$  (combined temperature ranges, unweighted).

Coefficient	T = 273.15 to 428.75 K $\rho = A + BT + CT^2 + DT^3 + \dots$
A	1.00106 · 10 <sup>3</sup>
B	-6.60053 · 10 <sup>-1</sup>
C	-1.68421 · 10 <sup>-4</sup>

Table 2. Experimental values with uncertainties and deviation from calculated values.

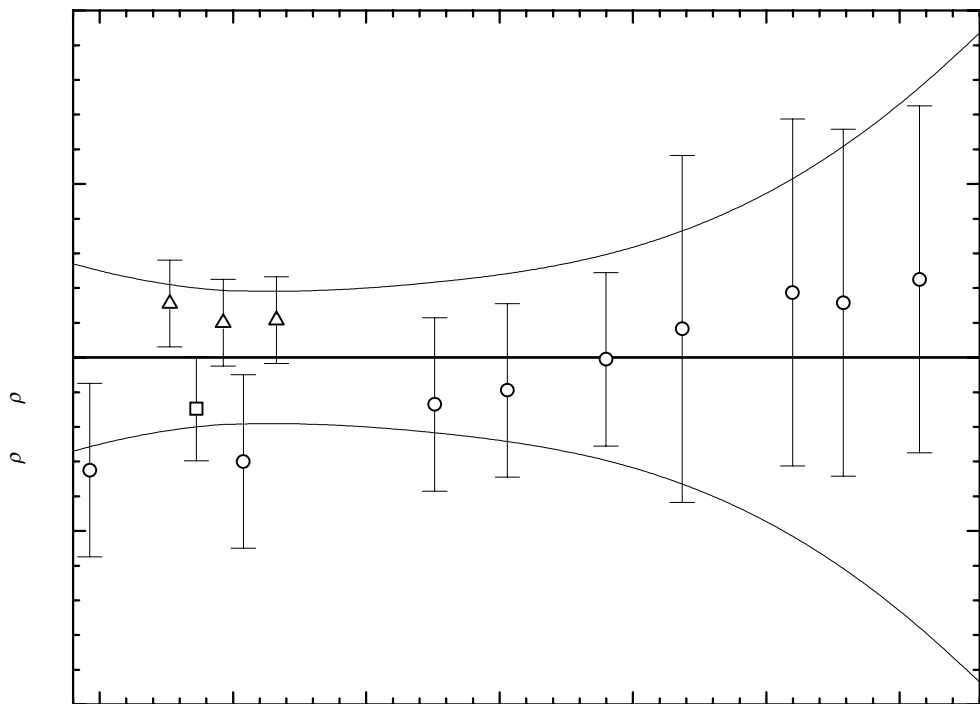
$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)
273.15	806.90 ± 1.00	-1.30	1888-dob(○)	414.45	699.20 ± 2.00	0.63	1888-dob(○)
301.95	785.20 ± 1.00	-1.20	1888-dob(○)	428.75	688.00 ± 2.00	0.90	1888-dob(○)
337.85	758.30 ± 1.00	-0.54	1888-dob(○)	293.15	792.50 ± 0.60	-0.59	1953-dev/pan(□)
351.45	747.90 ± 1.00	-0.38	1888-dob(○)	288.15	797.50 ± 0.50	0.62	1985-oba/ood(Δ)
369.95	733.80 ± 1.00	-0.02	1888-dob(○)	298.15	789.70 ± 0.50	0.40	1985-oba/ood(Δ)
384.25	722.90 ± 2.00	0.33	1888-dob(○)	308.15	782.10 ± 0.50	0.43	1985-oba/ood(Δ)
404.95	706.90 ± 2.00	0.75	1888-dob(○)				

<sup>1)</sup> Not included in Fig. 1.

Table 3. Recommended values (fit to the reliable experimental values according to the equations  $\rho = A + BT + CT^2 + DT^3 + \dots$  or  $\rho = [1 + 1.75(1 - T/T_c)^{1/3} + 0.75(1 - T/T_c)][\rho_c + A(T_c - T) + B(T_c - T)^2 + C(T_c - T)^3 + D(T_c - T)^4]$ ).

$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$
270.00	810.57 ± 1.08	320.00	772.60 ± 0.78	390.00	718.02 ± 1.59
280.00	803.04 ± 0.92	330.00	764.90 ± 0.82	400.00	710.09 ± 1.88
290.00	795.48 ± 0.82	340.00	757.17 ± 0.88	410.00	702.13 ± 2.24
293.15	793.09 ± 0.80	350.00	749.41 ± 0.95	420.00	694.13 ± 2.67
298.15	789.30 ± 0.77	360.00	741.62 ± 1.05	430.00	686.10 ± 3.17
300.00	787.89 ± 0.77	370.00	733.79 ± 1.18	440.00	678.03 ± 3.74
310.00	780.26 ± 0.76	380.00	725.92 ± 1.36		

cont.



**Fig. 1.** The symbols show the deviation of the calculated from the experimental values from Table 2. The curves above and below the zero line indicate the calculated error region of the recommended values given in Table 3. The error bars represent the experimental errors. (Error bars smaller than the symbols are omitted for clarity of the figure.)

1-Butylhexyl ethyl ether

[91635-40-4]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

613

**Table 1.** Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	792.9 ± 1.0	1959-asi/gei

Decyl ethyl ether

[16979-29-6]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

614

**Table 1.** Fit with estimated *B* coefficient for 3 accepted points. Deviation  $\sigma_w = 0.094$ .

Coefficient	$\rho = A + BT$
<i>A</i>	1025.02
<i>B</i>	-0.780

cont.

Decyl ethyl ether (cont.)

Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	794.2 ± 2.0	-2.17	1927-tal <sup>1)</sup>	288.15	800.2 ± 0.5	-0.07	1985-oba/ood
293.15	794.2 ± 2.0	-2.17	1932-kom/tal <sup>1)</sup>	298.15	792.4 ± 0.5	-0.07	1985-oba/ood
293.15	794.0 ± 2.0	-2.37	1959-asi/gei <sup>1)</sup>	308.15	784.8 ± 0.5	0.13	1985-oba/ood

<sup>1)</sup> Not included in calculation of linear coefficients.

Table 3. Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	806.6 ± 0.8
290.00	798.8 ± 0.4
293.15	796.4 ± 0.3
298.15	792.5 ± 0.2
310.00	783.2 ± 0.5

Dihexyl ether

[112-58-3]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

615

Table 1. Fit with estimated *B* coefficient for 10 accepted points. Deviation σ<sub>w</sub> = 1.018.

Coefficient	$\rho = A + BT$
<i>A</i>	1021.18
<i>B</i>	-0.770

Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	793.6 ± 1.0	-1.86	1936-oli	293.15	793.0 ± 2.0	-2.46	1958-ano-13 <sup>1)</sup>
293.15	793.4 ± 1.0	-2.06	1948-vog-8	293.15	803.5 ± 2.0	8.04	1964-dyk/shi <sup>1)</sup>
313.35	778.2 ± 1.0	-1.70	1948-vog-8	293.15	794.3 ± 1.0	-1.16	1964-shu/poz
334.95	762.8 ± 1.0	-0.47	1948-vog-8	293.15	792.1 ± 2.0	-3.36	1967-kar/bys <sup>1)</sup>
360.05	743.5 ± 1.0	-0.45	1948-vog-8	288.15	800.0 ± 0.5	0.69	1985-oba/ood
293.15	793.0 ± 2.0	-2.46	1953-ano-15 <sup>1)</sup>	298.15	792.3 ± 0.5	0.69	1985-oba/ood
291.15	796.0 ± 1.0	-1.00	1954-mas/flo	308.15	784.7 ± 0.5	0.79	1985-oba/ood

<sup>1)</sup> Not included in calculation of linear coefficients.

Table 3. Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	805.6 ± 1.5	310.00	782.5 ± 1.2	350.00	751.7 ± 2.2
290.00	797.9 ± 1.3	320.00	774.8 ± 1.3	360.00	744.0 ± 2.6
293.15	795.5 ± 1.2	330.00	767.1 ± 1.6	370.00	736.3 ± 2.9
298.15	791.6 ± 1.2	340.00	759.4 ± 1.9		

Ethyl 1-ethyloctyl ether

[91635-41-5]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

616

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	792.4 ± 2.0	1959-asi/gei

Ethyl 1-methylnonyl ether

[500003-77-0]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

617

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	791.5 ± 1.0	1959-asi/gei

Ethyl 1-propylheptyl ether

[91635-42-6]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

618

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	792.8 ± 1.0	1959-asi/gei

1-Ethylheptyl propyl ether

[500004-25-1]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

619

Table 1. Fit with estimated *B* coefficient for 6 accepted points. Deviation σ<sub>w</sub> = 0.814.

Coefficient	$\rho = A + BT$
<i>A</i>	1038.31
<i>B</i>	-0.820

Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
294.15	796.1 ± 1.0	-1.01	1924-ken/bar	352.15	750.6 ± 1.0	1.05	1924-ken/bar
314.15	781.1 ± 1.0	0.39	1924-ken/bar	374.15	731.9 ± 1.0	0.39	1924-ken/bar
333.15	765.5 ± 1.0	0.37	1924-ken/bar	410.15	700.8 ± 1.0	-1.19	1924-ken/bar

Table 3. Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
290.00	800.5 ± 1.7	330.00	767.7 ± 1.3	380.00	726.7 ± 1.4
293.15	797.9 ± 1.6	340.00	759.5 ± 1.2	390.00	718.5 ± 1.5
298.15	793.8 ± 1.5	350.00	751.3 ± 1.2	400.00	710.3 ± 1.6
310.00	784.1 ± 1.4	360.00	743.1 ± 1.2	410.00	702.1 ± 1.8
320.00	775.9 ± 1.3	370.00	734.9 ± 1.3	420.00	693.9 ± 1.9

Heptyl pentyl ether

[74398-40-6]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

620

**Table 1.** Fit with estimated *B* coefficient for 3 accepted points. Deviation σ<sub>w</sub> = 0.000.

Coefficient	$\rho = A + BT$
<i>A</i>	1019.28
<i>B</i>	-0.770

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	796.5 ± 2.0	2.95	1957-gol/kon <sup>1)</sup>
288.15	797.4 ± 0.5	-0.00	1985-oba/ood
298.15	789.7 ± 0.5	-0.00	1985-oba/ood
308.15	782.0 ± 0.5	-0.00	1985-oba/ood

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	803.7 ± 0.8
290.00	796.0 ± 0.5
293.15	793.6 ± 0.4
298.15	789.7 ± 0.3
310.00	780.6 ± 0.6

1-Methylpropyl octyl ether

[51182-83-3]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

621

**Table 1.** Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	789.1 ± 0.6	1953-dev/pan

2-Methylpropyl octyl ether

[90689-24-0]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

622

**Table 1.** Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	785.6 ± 0.6	1953-dev/pan

Nonyl propyl ether

[92097-08-0]

C<sub>12</sub>H<sub>26</sub>O

MW = 186.34

623

**Table 1.** Fit with estimated *B* coefficient for 3 accepted points. Deviation σ<sub>w</sub> = 0.047.

Coefficient	$\rho = A + BT$
<i>A</i>	1020.51
<i>B</i>	-0.770

cont.



**Table 2.** Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
288.15	798.60 ± 0.3	-0.03	1985-oba/ood
298.15	791.00 ± 0.3	0.07	1985-oba/ood
308.15	783.20 ± 0.3	-0.03	1985-oba/ood

**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
280.00	804.9 ± 0.8
290.00	797.2 ± 0.4
293.15	794.8 ± 0.3
298.15	790.9 ± 0.3
310.00	781.8 ± 0.5