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COMMISSION OF THE EUROPEAN COMMUNITIES

LIQUID VISCOSITY AND CHEMICAL CONSTITUTION  
OF ORGANIC COMPOUNDS :  
A NEW CORRELATION  
AND A COMPILATION OF LITERATURE DATA

by

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Chemistry

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The method is based on the De Guzman-Andrade equation and the introduction of a new property, the equivalent chain length of a compound, defined as the chain length (in carbon atoms) of the hypothetical n-alkane having a viscosity equal to 1 cP at the same temperature as the compound in question.

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Cumulative constitutional correction factors for the equivalent chain length and the slope of the log viscosity/temperature curve are proposed. With the aid of these data the viscosity between boiling and melting point of many compounds can be predicted.

The method proves to be more accurate than the existing ones and it does not make use of any other physical property.

In the Appendix of the report more than 4 000 viscosity data for more than 300 different compounds are compiled together with an appropriate index. Therefore, the Appendix may be used as a viscosity data handbook.

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## ABSTRACT

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The method is based on the De Guzman-Andrade equation and the introduction of a new property, the equivalent chain length of a compound, defined as the chain length (in carbon atoms) of the hypothetical n-alkane having a viscosity equal to  $\eta$  cP at the same temperature as the compound in question.

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## KEYWORDS

VISCOSITY	BENZOPHENONE
LIQUIDS	CYCLOHEXANE
ORGANIC COMPOUNDS	KETONES
TEMPERATURE COEFFICIENT	ALCOHOLS
BINDING ENERGY	ETHERS
MOLECULAR STRUCTURE	AROMATICS
FUNCTIONS	AMINES
EQUATIONS	ISOMERS
ALKANES	ESTERS
ALKENES	POLYPHENYLS
ORGANIC ACIDS	TABLES
CHLOROFORM	MEASURED VALUES

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1. INTRODUCTION \*)

The literature dealing with liquid viscosity is very extensive and many attempts have been made to correlate the viscosity of liquids to temperature and chemical constitution on a theoretical basis as well as purely empirically.

Truly theoretical efforts have met with little success. Brush [1] summarizes the state of the art as follows:

"The statement that (liquid) viscosity is due to interatomic forces by no means constitutes a scientific theory. It is necessary to show that the assumption of some specific type of force law, not too different from the laws assumed in other successful theories, leads to correct predictions of the value of the viscosity coefficient over the entire range of temperatures and pressures. We are certainly nowhere near having achieved this, at least if one judges by the standards applicable to gas theory. Instead we have a large number of competing "theories of viscosity", ranging from those which do no more than suggest explanations for the factors introduced into empirical formulas, to those which subject the unfortunate reader to hundreds of complex mathematical equations without rewarding him any real solution to the problem..."

At present there is no theory which allows liquid viscosities to be calculated by simple equations, and thus empirical estimation techniques must be used.

2. EFFECT OF TEMPERATURE AND CHEMICAL CONSTITUTION ON LIQUID VISCOSITY

The best known relation to correlate liquid viscosity and temperature is:

$$\eta_L = Ae^{B/T} \quad \text{Eq. 1}$$

where A and B are positive. Eq. 1 was originally proposed by De Guzman [2] and has since become known as the Andrade equation, because Andrade suggested this form as a result of an analysis of the mechanism of liquid viscosity [3]. The equation represents the viscosity-temperature relation fairly well within the temperature range which extends from the normal boiling point to the freezing point.

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\*) Manuscript received on November 3, 1971

For associated liquids and hydrocarbon mixtures of higher viscosity the relationship between  $\log \eta_L$  and  $1/T$  is no longer a linear one, but becomes slightly curved. Consequently, in these cases the De Guzman-Andrade relation fails. To overcome this difficulty, a large number of modifications of the original equation have been proposed, generally introducing, in one way or another, a third constant to correct the equation for the curvature.

For instance, Gutmann and Simmons [4] proposed the formula:

$$\log \eta_L = A + \frac{B}{C+T} \quad \text{Eq. 2}$$

Girifalco [5] :

$$\log \eta_L = A + \frac{B}{T} + \frac{C}{T^2} \quad \text{Eq. 3}$$

and Cornelissen and Waterman [6] :

$$\log \eta_L = A + \frac{B}{T^C} \quad \text{Eq. 4}$$

Besides relations based on the De Guzman-Andrade equation, many other relationships have been suggested, some of a polynomic form [7], others making use of the reduced temperature [8]. However, it may be stated that for general purposes the De Guzman-Andrade relation is still the best simple temperature-liquid viscosity function. If many data points are available for a single compound, these can be more accurately fitted by Eq. 2 or Eq. 3. These two equations do not show any significant difference in accuracy, according to the experience of the present authors.

Various attempts have been made to predict viscosities as a function of chemical constitution: none is reliable, all are empirical. Hitherto all of them involve some other physical property. For instance, Souders [9] uses the density, Thomas [10] the density and the critical temperature, Gambill [11] the density, the normal boiling point, the latent heat of vaporization and Stiel and Thodos [12-15] the density, the critical temperature, pressure and volume.

Until now no relation has been developed by which the viscosity can be estimated from the chemical constitution, when no value of any other physical property is available.

### 3. PROPOSED RELATION FOR THE HOMOLOGOUS SERIES OF THE ALKANES

The aim of the development of another viscosity-temperature-chemical constitution relation was to establish a relation in which no other physical property occurs.

The basis of the relation is the De Guzman-Andrade equation, written as:

$$\log \eta_L = A + B/T \quad \text{Eq. 5}$$

When  $\eta_L = 1$  cP,  $\log \eta_L = 0$  and it follows:

$T_{\eta_L=1} = T_0 = -B/A$ , from which a modification of the original equation can be derived:

$$\log \eta_L = B \left[ \frac{1}{T} - \frac{1}{T_0} \right] \quad \text{Eq. 6}$$

This equation contains two unknown factors,  $T_0$ , which is the intercept of the log viscosity-temperature line with the abscissa and B, the slope of this line.

For the homologous series of the n-alkanes B as well as  $T_0$  appear to be a function of N, the number of carbon atoms. By regression analysis it is found that:

For  $N \leq 20$ :

$$T_0 = 28.86 + 37.439 N - 1.3547 N^2 + 0.02076 N^3 \quad \text{Eq. 7}$$

and for  $N > 20$ :

$$T_0 = 8.164 N + 238.59 \quad \text{Eq. 8}$$

For  $N \leq 20$ :

$$B = 24.79 + 66.885 N - 1.3173 N^2 - 0.00377 N^3 \quad \text{Eq. 9}$$

For  $N > 20$ :

$$B = 530.59 + 13.740 N \quad \text{Eq. 10}$$

With the aid of Eq. 7 to Eq. 10 the viscosities of all n-alkanes at all temperatures between the melting and the boiling point can be predicted. With the exception of methane, the calculated and experimental results agree reasonably (see Appendix).

As a yardstick for the reliability of the method the "mean error" for each compound has been taken. The mean error is defined as

$$E_m = \frac{\sum |E|}{n},$$

where  $|E|$  = absolute error (calculated value - experimental value) / (experimental value)  
n = number of data points.

The paraffinic compounds which show the greatest normalised standard deviations are methane ( $E_m = 111.6\%$ ), ethane (9.0%), propane (12.3%) and butane (9.3%). The compounds from pentane to eicosane show values of  $E_m$  between 1.6 and 4.0%, and two single points for hexacosane and triacontane show errors of 6.4 and 8.6%.

The equations developed for the n-alkanes form the basis of the general relation for other compounds.

#### 4. GENERAL RELATION

The principle of the method is the introduction of the equivalent chain length (NE), which is the chain length of a hypothetical n-alkane with viscosity equal to 1 cP at the temperature at which the viscosity of the compound in question is also 1 cP.

NE is calculated as the sum of the total number of carbon atoms of the compound (N) and one or more structural and/or configurational factors ( $\Delta N$ ).

In the same way, B is calculated as

$$B = B_a + \Delta B$$

where  $B_a$  = the value of B for the hypothetical alkane with the equivalent chain length NE (calculated by Eq. 9 or 10)  
 $\Delta B$  = a correction factor depending on the chemical constitution of the compound.

Generally,  $\Delta N$  is not a constant, but a function of N, whereas in most cases  $\Delta B$  is a function of NE.

It appears that for compounds with more than one functional group both  $\Delta N$  and  $\Delta B$  are cumulative factors. Thus, the equivalent chain length can be found from:

$$NE = N + \Delta N_1 + \Delta N_2 \dots$$

Once NE is known,  $T_0$  can be calculated from Eq. 7 or Eq. 8 inserting NE for N.

$B_a$  is found from Eq. 9 or Eq. 10, inserting  $B_a$  and NE for B and N.

Subsequently the required viscosity is calculated by Eq. 6, as both factors B and  $T_0$  are now known.

Table I gives the various functions for  $\Delta N$  and  $\Delta B$  for a number of functional groups and structural configurations.

N-B- There exists one important difference between the calculation of NE and B:

If the compound contains two or more identical functional groups, the  $\Delta N$  correction for this group should be applied, twice, thrice, etc..... On the contrary, for the calculation of B, the functional correction has to be applied only once.

A few examples follow:

I) Pentanoic Acid (Valeric acid)

Calculation of NE from N and Table I:

$$\Delta N: (\text{acids}) \quad 6.795 + 5 \times 0.365 \qquad \begin{array}{r} N = 5.00 \\ = 8.62 \end{array}$$

---


$$NE = 13.62$$

Calculation of B from NE, Eq. 9 ..... and Table II

$$B_a = 24.79 + 66.885 \times 13.62 - 1.3173 \times 13.62^2 - 0.00377 \times 13.62^3 = 681.86$$

$$\Delta B (\text{acids}): - 249.12 + 22.449 \times 13.62 \qquad = 56.64$$

---


$$B = 738.50$$

Calculation of  $T_o$  from NE (Eq. 7)

$$T_o = 28.86 + 37.439 \times 13.62 - 1.3547 \times 13.62^2 + 0.02076 \times 13.62^3 = 339.93^\circ K$$

$$\text{Thus: } \log \eta_L = 738.50 \left[ \frac{1}{T} - \frac{1}{339.93} \right]$$

II) Trichloromethane (chloroform):

Calculation of NE:

$$\Delta N_1 : 3 \times (\text{chlorine}) = 3 \times 3.21$$

$$\Delta N_2 : (\text{C(Cl)}_3 \text{ configuration}) = 1.91 - 3 \times 1.459$$

$$\begin{array}{r} N = 1.00 \\ = 9.63 \\ = -2.47 \end{array}$$

---


$$NE = 8.16$$

Calculation of B:

$$\begin{aligned}
 B_a &: 24.79 + 66.885 \times 8.16 - 1.3173 \times 8.16^2 - & & = 480.81 \\
 & \quad - 0.00377 \times 8.16^3 & & = - 17.03 \\
 \Delta B_1 &: (\text{chlorine}) & & = - 26.38 \\
 \Delta B_2 &: (\text{C(Cl)}_3 \text{ configuration}) & & \\
 \hline
 B &= 437.40
 \end{aligned}$$

From Eq. 7 it follows that  $T_0 = 255.44^\circ\text{K}$  and

$$\log \eta_L = 437.40 \left[ \frac{1}{T} - \frac{1}{255.44} \right]$$

### III) Benzophenone

Calculation of NE:

$$\begin{aligned}
 \Delta N_1 &: (\text{ketones}) 3.265 - 13 \times 0.122 & N &= 13.00 \\
 \Delta N_2 &: 2 \text{ Aromatic (ketones)} = 2.70 & &= 1.68 \\
 & & &= 5.40
 \end{aligned}$$

---


$$\text{NE} = 20.08$$

Calculation of B (Eq. 10)

$$\begin{aligned}
 B_a &: 530.59 + 13.74 \times 20.08 & & = 806.49 \\
 \Delta B_1 &: \text{ketones: } - 117.21 + 15.781 \times 20.08 & & = 199.67 \\
 \Delta B_2 &: \text{Aromatic (ketones): } - 760.65 + 50.418 \times 20.08 & & = 252.95
 \end{aligned}$$

---


$$B = 1259.11$$

From Eq. 8 it follows that  $T_0 = 402.50^\circ\text{K}$  and

$$\log \eta_L = 1259.11 \left[ \frac{1}{T} - \frac{1}{402.50} \right]$$

A comparison of the viscosity data and the calculated values can be found in Appendix I.

## 5. DISCUSSION

The relations given in Table I have been developed and tested by consideration of a large number of data, covering 314 different compounds with nearly 4500 data points.

All experimental and calculated values of the viscosity, experimental and calculated values of  $T_0$ , NE and B, together with the mean absolute error per compound are given in Appendix I.

Appendix II contains an alphabetical index of all compounds. Besides as a demonstration of the proposed correlation, Appendix I may also serve a useful purpose as a handbook for viscosity data.

It appears that the agreement between the calculated and experimental values is generally satisfactory. The error distribution is as follows:

	<u>No. of compounds</u>	<u>Percentage</u>
0 - 5%	177	56.4
5 - 10%	68	21.7
10 - 15%	27	8.6
15 - 20%	13	4.1
20 - 25%	8	2.5
25 - 30%	5	1.6
30 - 40%	8	2.5
40 - 50%	3	1.0
50 - 60%	2	0.6
60 - 70%	-	-
70 - 80%	-	-
80 - 90%	1	0.3
90 - 100%	-	-
100%	2	0.6

The very large errors are usually found in the first numbers of a homologous series, e.g.:

methane	:	111.6%	methanol	:	172.0%
ethene	:	45.2%	ethanol	:	84.7%
propene	:	25.4%	benzene	:	30.8%
methanoic acid	:	58.0%	cyclohexane	:	33.4%
ethanoic acid:		26.3%	cyclopentane	:	33.1%

The above mentioned error distribution compares favourable with the error distributions for other methods, calculated by Reid and Sherwood [16]. A detailed comparison between the various methods and this work has been the subject of a separate study [26].



Two final remarks have to be made:

- 1.) A number of the relations given in Table II are based on a limited number of data points. This implies that extrapolation beyond the range for which the relation has been developed, may yield erroneous results. The relations given in Table II must therefore not be considered as definitive; if more data become available, in certain cases other relationships will have to be inserted to match all experimental data as well as possible.
- 2.) The proposed relation is based on the De Guzman-Andrade equation, although the modified forms of this equation generally yield a better fit of experimental and calculated points for single compounds. In the course of the present study the authors have made many attempts to base the relation on the Gutmann and Simmons formula (Eq. 2) and on the Girifalco formula (Eq. 3). These attempts were not successful, as the introduction of a third constant (C) severely influences the value of B. No simple and cumulative relations could be developed for B and C. Generally NE is not seriously affected by the use of modified forms of the De Guzman-Andrade equation.

The final conclusion is that the aim to develop a relationship in which no other physical properties occur and which is reasonably accurate, has adequately been reached.

T A B L E I

Functions for  $\Delta N$  and  $\Delta B$

	$\Delta N$	$\Delta B$	Number of com- pounds used
<u>FUNCTIONAL GROUPS</u>			
n-Alkanes	-	-	22
Alkene	-	-	19
Acid $3 \leq N \leq 10$	$-0.152 - 0.042 N$	$-44.94 + 5.410 NE$	10
$N > 10$	$6.795 + 0.365 N$	$-249.12 + 22.449 NE$	4
Ester	$10.71$	$-249.12 + 22.449 NE$	22
Prim. alcohol	$4.337 - 0.230 N$	$-149.13 + 18.695 NE$	6
Sec. alcohol	$10.606 - 0.276 N$	$-589.44 + 70.519 NE$	1
Tert. alcohol	$11.200 - 0.605 N$	497.58	2
Diol	$11.200 - 0.605 N$	928.83	2
	Alcoholic correction + configurational factor	557.77	9
Ketone	$3.265 - 0.122 N$	$-117.21 + 15.781 NE$	5
Ether	$0.298 + 0.209 N$	$-9.39 + 2.848 NE$	6
Prim. amine	$3.581 + 0.325 N$	$25.39 + 8.744 NE$	5
Sec. amine	$1.390 + 0.461 N$	$25.39 + 8.744 NE$	3
Tert. amine	3.27	$25.39 + 8.744 NE$	2
Fluoride	1.43	5.75	4
Chloride	3.21	-17.03	9
Bromide	4.39	$-101.97 + 5.954 NE$	4
Iodide	5.76	-85.32	4
Aromatic and 1-nitro	$7.812 - 0.236 N$	$-213.14 + 18.330 NE$	6
2-nitro	5.84	$-213.14 + 18.330 NE$	9
3-nitro	5.56	$-338.01 + 25.086 NE$	6
4,5-nitro	5.36	$-338.01 + 25.086 NE$	7
<u>CONFIGURATIONAL FACTORS</u>			
Correction for aromatic nucleus			
Alkyl-, halogen-, nitrobenzenes, sec. and tert. amines $8 \leq N \leq 15$	0.60	$-140.04 + 13.869 NE$	9,4,4,5,3
$N > 15$	$3.055 - 0.161 N$	$-140.04 + 13.869 NE$	7

T A B L E I

Continue

	$\Delta N$	$\Delta B$	Number of com- pounds used
Acids	4.81	-188.40 + 9.558 NE	3
Esters	-1.174 + 0.376 N	-140.04 + 13.869 NE	3
Alcohols: OH attached to nucleus: NE = 16.17 I)	take for all phenolic compounds		
Alcohols: OH in side chain	-0.16	213.68	8
Ketones	2.70	213.68	2
Ethers: take for all aromatic ethers NE = 11.50 I)		-760.65 + 50.478 NE	2
Primary amines: NH <sub>2</sub> attached to nucleus: NE = 15.04 I)	take for all anilinic compounds		
Primary amines: NH <sub>2</sub> in side chain	-0.16	-140.04 + 13.869 NE	9
Various			
Polyphenyls	-5.340 + 0.815 N	-188.40 + 9.558 NE	4
Ortho-configuration	0.51	OH group present: -571.94 without OH: 54.84	2
Meta-configuration	0.11	27.25	5
Para-configuration	-0.04	-17.57	6
Cyclopentane 7 ≤ N ≤ 15	0.205 + 0.069 N	-45.96 + 2.224 NE	9
N > 15	3.971 - 0.172 N	-339.67 + 23.135 NE	6
Cyclohexane 8 ≤ N ≤ 16	1.48	-272.85 + 25.041 NE	9
N > 16	6.517 - 0.311 N	-272.85 + 25.041 NE	6
<u>ISO-CONFIGURATION</u>			
Alkanes	1.389 - 0.238 N	15.51	4
Double iso in alkanes (extra correction)	0.93	-	3

I) Other substituents, such as Cl, CH<sub>3</sub>, NO<sub>2</sub> .... are neglected for the determination of NE. For the calculation of B, they have to be taken into account.

T A B L E I

Continue

	$\Delta N$	$\Delta B$	Number of com- pounds used
Alkenes	1.389 - 0.238	8.93	3
Alcohols	0.24	94.23	5
Esters, alkylbenzenes, halogenides, ketones	-0.24	8.93	5,1,5,1
Acids	-0.24	-	2
Ethers, amines	-0.50	8.93	4,2
<u>VARIOUS</u>			
C(Cl) <sub>x</sub> -configuration	1.91 - 1.459 X	-26.38	4
-CCl-CCl-	0.96	-	2
-C(Br) <sub>x</sub> -	0.50	81.34 - 86.850 X	2
-CBr-CBr-	1.60	-57.73	3
CF <sub>3</sub> - (in alcohols)	-3.93	341.68	2
(other compounds)	-3.93	25.55	6
Diols	-2.50 + N	See alcohols	2

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APPENDIX I

COMPILATION OF LITERATURE DATA

This part of the report contains a compilation of all viscosity data used in the study.

The values of  $NE$ ,  $B$  and  $T_0$  quoted as "from experimental data" have been calculated by regression analysis from the literature data.

The values of  $NE$ ,  $B$  and  $T_0$  quoted as "calculated from correlation" have been calculated using the data of Table I as shown in the examples of pg. 10 and 11 of the report.

The mean absolute error is expressed in per cent of the experimental values (see page 8 of the report).

The reference numbers refer to the literature list given on page 15.





NAME	METHANE		
FORMULA	C H4		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.79	114.14	57.60
CALC. FROM CORRELATION	1.00	90.35	64.97
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-180.0	0.188	0.379	
-175.0	0.161	0.339	
-170.0	0.142	0.306	
-165.0	0.127	0.278	
NUMBER OF DATA POINTS	4		
MEAN ABSOLUTE ERROR	111.6		
REFERENCES	17		

NAME	ETHANE		
FORMULA	C2 H6		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	1.91	156.60	95.57
CALC. FROM CORRELATION	2.00	153.26	98.49
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-175.0	0.982	1.012	
-170.0	0.803	0.850	
-165.0	0.671	0.726	
-160.0	0.572	0.628	
-155.0	0.499	0.551	
-150.0	0.441	0.488	
-145.0	0.397	0.436	
-140.0	0.358	0.393	
-135.0	0.327	0.357	
-130.0	0.300	0.327	
-125.0	0.277	0.301	
-120.0	0.256	0.278	
-115.0	0.237	0.259	
-110.0	0.221	0.242	
-105.0	0.206	0.227	
-100.0	0.194	0.213	
-95.0	0.183	0.201	
-90.0	0.172	0.191	
NUMBER OF DATA POINTS	18		
MEAN ABSOLUTE ERROR	9.0		
REFERENCES	17		

NAME		PROPANE		
FORMULA		C3 H8		
CONSTANTS		NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA		3.13	222.67	133.41
CALC. FROM CORRELATION		3.00	213.49	129.55
TEMP. (DEG.C)	VISCOSITY (CP)			
	EXP.	CALC.		
-185.0	8.750	5.938		
-180.0	5.942	4.402		
-175.0	4.248	3.364		
-170.0	3.170	2.639		
-165.0	2.453	2.118		
-160.0	1.954	1.732		
-155.0	1.595	1.441		
-150.0	1.336	1.217		
-145.0	1.137	1.042		
-140.0	0.981	0.902		
-135.0	0.859	0.789		
-130.0	0.760	0.697		
-125.0	0.679	0.621		
-120.0	0.612	0.557		
-115.0	0.556	0.503		
-110.0	0.509	0.458		
-105.0	0.468	0.418		
-100.0	0.432	0.385		
-95.0	0.401	0.355		
-90.0	0.373	0.329		
-85.0	0.349	0.307		
-80.0	0.326	0.287		
-75.0	0.306	0.269		
-70.0	0.287	0.253		
-65.0	0.271	0.239		
-60.0	0.255	0.226		
-55.0	0.241	0.214		
-50.0	0.228	0.204		
-45.0	0.215	0.194		

NUMBER OF DATA POINTS 29  
 MEAN ABSOLUTE ERROR 12.3  
 REFERENCES 17

NAME		BUTANE		
FORMULA		C4 H10		
CONSTANTS		NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA		4.07	265.84	160.20
CALC. FROM CORRELATION		4.00	271.01	158.27
TEMP. (DEG.C)	VISCOSITY (CP)			
	EXP.	CALC.		
-90.0	0.628	0.585		
-85.0	0.578	0.535		
-80.0	0.534	0.491		
-75.0	0.496	0.452		
-70.0	0.461	0.418		
-65.0	0.430	0.389		
-60.0	0.402	0.362		
-55.0	0.377	0.339		
-50.0	0.354	0.318		
-45.0	0.334	0.299		
-40.0	0.314	0.282		
-35.0	0.297	0.266		
-30.0	0.281	0.252		
-25.0	0.266	0.240		
-20.0	0.252	0.228		
-15.0	0.240	0.217		
-10.0	0.228	0.208		
-5.0	0.218	0.199		

NUMBER OF DATA POINTS 18  
 MEAN ABSOLUTE ERROR 9.3  
 REFERENCES 17

NAME PENTANE

FORMULA C5 H12

CONSTANTS

NE

B

TO( DEG.K)

FROM EXPERIMENTAL DATA

4.91

313.66

182.48

CALC. FROM CORRELATION

5.00

325.81

184.78

TEMP.  
(DEG.C)VISCOSITY  
(CP)

EXP.

CALC.

0.0	0.282	0.269
10.0	0.255	0.244
20.0	0.232	0.223
30.0	0.211	0.205
0.0	0.289	0.269
20.0	0.240	0.223
-125.0	2.890	2.728
-120.0	2.350	2.312
-115.0	1.960	1.981
-110.0	1.660	1.713
-105.0	1.430	1.494
-100.0	1.240	1.313
-95.0	1.090	1.163
-90.0	0.970	1.037
-85.0	0.871	0.930
-80.0	0.788	0.839
-75.0	0.717	0.760
-70.0	0.657	0.693
-65.0	0.605	0.634
-60.0	0.560	0.582
-55.0	0.520	0.537
-50.0	0.485	0.497
-45.0	0.454	0.462
-40.0	0.427	0.431
-35.0	0.401	0.403
-30.0	0.379	0.377
-25.0	0.358	0.355
-20.0	0.340	0.334
-15.0	0.323	0.315
-10.0	0.307	0.298
-5.0	0.293	0.283
0.0	0.279	0.269
5.0	0.267	0.256
10.0	0.255	0.244
15.0	0.245	0.233
20.0	0.235	0.223
25.0	0.225	0.214
30.0	0.216	0.205
35.0	0.207	0.197

NUMBER OF DATA POINTS

39

MEAN ABSOLUTE ERROR

4.0

REFERENCES

17, 19, 20

NAME            HEXANE  
 FORMULA        C6 H14  
 CONSTANTS                    NE            B            TO( DEG.K)  
 FROM EXPERIMENTAL DATA    5.91        362.79       207.09  
 CALC. FROM CORRELATION    6.00        377.86       209.21

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.8	0.393	0.374
9.1	0.358	0.341
14.8	0.337	0.321
20.0	0.320	0.304
25.4	0.303	0.288
30.2	0.289	0.275
36.8	0.272	0.259
43.5	0.255	0.244
47.4	0.247	0.236
58.8	0.223	0.215
63.6	0.214	0.207
0.0	0.401	0.378
20.0	0.326	0.304
25.0	0.294	0.289
40.0	0.271	0.251
50.0	0.248	0.231
-95.0	2.140	2.064
-90.0	1.830	1.807
-85.0	1.580	1.592
-80.0	1.380	1.413
-75.0	1.220	1.261
-70.0	1.090	1.132
-65.0	0.975	1.021
-60.0	0.885	0.926
-55.0	0.806	0.843
-50.0	0.738	0.771
-45.0	0.680	0.708
-40.0	0.630	0.652
-35.0	0.582	0.603
-30.0	0.542	0.560
-25.0	0.510	0.521
-20.0	0.479	0.486
-15.0	0.450	0.454
-10.0	0.425	0.426
-5.0	0.401	0.401
0.0	0.380	0.378
5.0	0.360	0.357
10.0	0.343	0.338
15.0	0.327	0.320
20.0	0.312	0.304
25.0	0.298	0.289
30.0	0.285	0.276
35.0	0.273	0.263
40.0	0.261	0.251
45.0	0.251	0.241
50.0	0.241	0.231
55.0	0.231	0.221
60.0	0.222	0.213
65.0	0.213	0.205

NUMBER OF DATA POINTS  
 MEAN ABSOLUTE ERROR  
 REFERENCES

49  
 3.5  
 17, 18, 20

NAME HEPTANE

FORMULA C7 H16

CONSTANTS

NE

B

TO(DEG.K)

FROM EXPERIMENTAL DATA

7.04

436.73

232.53

CALC. FROM CORRELATION

7.00

427.14

231.67

TEMP.  
(DEG.C)VISCOSITY  
(CP)

EXP.

CALC.

6.6	0.479	0.482
13.4	0.441	0.443
21.7	0.402	0.402
30.3	0.368	0.366
38.3	0.339	0.337
47.3	0.311	0.309
55.0	0.289	0.287
62.0	0.271	0.270
70.1	0.252	0.252
77.7	0.237	0.236
85.5	0.221	0.222
92.2	0.209	0.212
0.0	0.524	0.525
17.0	0.461	0.425
20.0	0.409	0.410
25.0	0.386	0.388
40.0	0.341	0.331
-90.0	3.770	3.079
-85.0	3.110	2.669
-80.0	2.610	2.331
-75.0	2.220	2.050
-70.0	1.912	1.815
-65.0	1.670	1.615
-60.0	1.472	1.446
-55.0	1.310	1.301
-50.0	1.174	1.176
-45.0	1.060	1.068
-40.0	0.962	0.973
-35.0	0.879	0.891
-30.0	0.807	0.818
-25.0	0.744	0.754
-20.0	0.690	0.697
-15.0	0.641	0.647
-10.0	0.597	0.602
-5.0	0.559	0.561
0.0	0.524	0.525
5.0	0.494	0.492
10.0	0.465	0.462
15.0	0.440	0.435
20.0	0.417	0.410
25.0	0.396	0.388
30.0	0.376	0.367
35.0	0.358	0.349
40.0	0.342	0.331
45.0	0.327	0.315
50.0	0.312	0.301
55.0	0.299	0.287
60.0	0.286	0.274
65.0	0.274	0.263
70.0	0.263	0.252
75.0	0.253	0.242
80.0	0.243	0.232
85.0	0.233	0.223
90.0	0.225	0.215
95.0	0.216	0.207

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES

55  
2.7  
17, 18, 20

NAME	OCTANE		
FORMULA	C8 H18		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.97	473.70	251.71
CALC. FROM CORRELATION	8.00	473.63	252.30
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
0.3	0.700	0.716	
12.2	0.594	0.606	
22.9	0.520	0.528	
33.0	0.463	0.468	
43.9	0.411	0.414	
54.7	0.367	0.369	
66.5	0.328	0.329	
77.8	0.296	0.297	
88.3	0.269	0.271	
98.5	0.247	0.249	
109.1	0.227	0.230	
122.1	0.204	0.209	
0.0	0.706	0.719	
16.0	0.574	0.576	
20.0	0.542	0.547	
40.0	0.433	0.432	
-55.0	2.120	1.967	
-50.0	1.860	1.758	
-45.0	1.640	1.580	
-40.0	1.460	1.426	
-35.0	1.310	1.293	
-30.0	1.180	1.176	
-25.0	1.071	1.075	
-20.0	0.978	0.985	
-15.0	0.897	0.907	
-10.0	0.826	0.837	
-5.0	0.764	0.774	
0.0	0.710	0.719	
5.0	0.661	0.669	
10.0	0.618	0.624	
15.0	0.580	0.584	
20.0	0.545	0.547	
25.0	0.513	0.514	
30.0	0.486	0.484	
35.0	0.460	0.457	
40.0	0.436	0.432	
45.0	0.414	0.409	
50.0	0.394	0.388	
55.0	0.375	0.368	
60.0	0.358	0.350	
65.0	0.342	0.334	
70.0	0.327	0.318	
75.0	0.313	0.304	
80.0	0.300	0.291	
85.0	0.288	0.279	
90.0	0.276	0.267	
95.0	0.265	0.257	
100.0	0.255	0.247	
105.0	0.245	0.237	
110.0	0.236	0.228	
115.0	0.227	0.220	
120.0	0.219	0.213	
NUMBER OF DATA POINTS	52		
MEAN ABSOLUTE ERROR	1.8		
REFERENCES	17, 18, 20		

NAME	NONANE		
FORMULA	C9 H20		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	9.05	525.56	272.12
CALC. FROM CORRELATION	9.00	517.30	271.21
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
20.0	0.716	0.720	
50.0	0.496	0.494	
100.0	0.308	0.301	
150.0	0.213	0.207	
-20.0	0.711	0.720	
-50.0	2.990	2.575	
-45.0	2.580	2.290	
-40.0	2.240	2.048	
-35.0	1.970	1.840	
-30.0	1.742	1.660	
-25.0	1.555	1.504	
-20.0	1.399	1.368	
-15.0	1.266	1.249	
-10.0	1.150	1.144	
-5.0	1.051	1.051	
0.0	0.966	0.969	
5.0	0.890	0.896	
10.0	0.824	0.831	
15.0	0.766	0.772	
20.0	0.714	0.720	
25.0	0.668	0.672	
30.0	0.626	0.630	
35.0	0.588	0.591	
40.0	0.554	0.555	
45.0	0.523	0.523	
50.0	0.496	0.494	
55.0	0.470	0.467	
60.0	0.446	0.442	
65.0	0.424	0.419	
70.0	0.404	0.398	
75.0	0.385	0.379	
80.0	0.368	0.361	
85.0	0.351	0.344	
90.0	0.336	0.329	
95.0	0.323	0.315	
100.0	0.309	0.301	
105.0	0.297	0.289	
110.0	0.285	0.277	
115.0	0.274	0.266	
120.0	0.264	0.256	
125.0	0.254	0.247	
130.0	0.244	0.238	
135.0	0.235	0.229	
140.0	0.227	0.221	
145.0	0.219	0.214	
150.0	0.211	0.207	

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES

46  
2.4  
17, 19, 20

NAME            DECANE  
 FORMULA        C10 H22

CONSTANTS                    NE            B            TO( DEG.K)  
 FROM EXPERIMENTAL DATA    9.99        558.61      288.37  
 CALC. FROM CORRELATION    10.00       558.14      288.54

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-25.0	2.239	2.064
-20.0	1.981	1.863
-15.0	1.766	1.689
-10.0	1.585	1.537
-5.0	1.432	1.403
0.0	1.300	1.285
5.0	1.186	1.181
10.0	1.088	1.088
15.0	1.001	1.006
20.0	0.925	0.932
25.0	0.858	0.866
30.0	0.798	0.807
35.0	0.746	0.753
40.0	0.700	0.705
45.0	0.656	0.661
50.0	0.617	0.621
55.0	0.582	0.584
60.0	0.550	0.551
65.0	0.521	0.520
70.0	0.494	0.492
75.0	0.470	0.466
80.0	0.446	0.443
85.0	0.425	0.421
90.0	0.406	0.400
95.0	0.387	0.382
100.0	0.370	0.364
105.0	0.354	0.348
110.0	0.340	0.333
115.0	0.325	0.319
120.0	0.312	0.306
125.0	0.300	0.293
130.0	0.289	0.282
135.0	0.278	0.271
140.0	0.268	0.261
145.0	0.258	0.251
150.0	0.248	0.242
155.0	0.239	0.234
160.0	0.231	0.226
165.0	0.223	0.219
170.0	0.215	0.211
175.0	0.207	0.205
0.0	1.298	1.285
20.0	0.907	0.932
50.0	0.601	0.621
80.0	0.452	0.443
100.0	0.357	0.364
20.0	0.920	0.932

NUMBER OF DATA POINTS            47  
 MEAN ABSOLUTE ERROR            1.8  
 REFERENCES                        17, 22



NAME UNDECANE

FORMULA C11 H24

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 11.04 605.50 305.01  
CALC. FROM CORRELATION 11.00 596.11 304.40

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-25.0	3.182	2.778
-20.0	2.771	2.491
-15.0	2.435	2.243
-10.0	2.157	2.027
-5.0	1.924	1.839
0.0	1.728	1.675
5.0	1.560	1.530
10.0	1.417	1.402
15.0	1.291	1.289
20.0	1.184	1.189
25.0	1.091	1.099
30.0	1.009	1.019
35.0	0.935	0.946
40.0	0.870	0.882
45.0	0.812	0.823
50.0	0.760	0.770
55.0	0.713	0.721
60.0	0.671	0.678
65.0	0.631	0.638
70.0	0.596	0.601
75.0	0.564	0.567
80.0	0.535	0.537
85.0	0.509	0.508
90.0	0.484	0.482
95.0	0.460	0.458
100.0	0.440	0.436
105.0	0.420	0.415
110.0	0.400	0.396
115.0	0.383	0.378
120.0	0.367	0.361
125.0	0.351	0.346
130.0	0.337	0.331
135.0	0.324	0.318
140.0	0.311	0.305
145.0	0.300	0.293
150.0	0.288	0.282
155.0	0.277	0.272
160.0	0.267	0.262
165.0	0.257	0.252
170.0	0.248	0.244
175.0	0.240	0.235
180.0	0.231	0.228
185.0	0.222	0.220
190.0	0.215	0.213
195.0	0.207	0.207
20.0	1.186	1.189
50.0	0.761	0.770
100.0	0.438	0.436

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES48  
1.9  
17, 22

NAME	DODECANE		
FORMULA	C12 H26		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	11.99	631.63	318.78
CALC. FROM CORRELATION	12.00	631.20	318.92
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-5.0	2.558	2.370	
0.0	2.271	2.146	
5.0	2.031	1.950	
10.0	1.828	1.778	
15.0	1.653	1.627	
20.0	1.503	1.493	
25.0	1.374	1.373	
30.0	1.261	1.267	
35.0	1.162	1.173	
40.0	1.076	1.087	
45.0	1.000	1.011	
50.0	0.930	0.942	
55.0	0.867	0.880	
60.0	0.811	0.823	
65.0	0.762	0.772	
70.0	0.716	0.725	
75.0	0.665	0.682	
80.0	0.637	0.643	
85.0	0.603	0.607	
90.0	0.572	0.574	
95.0	0.543	0.544	
100.0	0.516	0.516	
105.0	0.492	0.490	
110.0	0.470	0.466	
115.0	0.448	0.444	
120.0	0.428	0.423	
125.0	0.409	0.404	
130.0	0.392	0.386	
135.0	0.375	0.369	
140.0	0.360	0.354	
145.0	0.346	0.339	
150.0	0.332	0.325	
155.0	0.320	0.313	
160.0	0.307	0.301	
165.0	0.296	0.289	
170.0	0.285	0.279	
175.0	0.275	0.269	
180.0	0.265	0.259	
185.0	0.256	0.250	
190.0	0.247	0.242	
195.0	0.238	0.234	
200.0	0.230	0.226	
205.0	0.222	0.219	
210.0	0.214	0.212	
215.0	0.206	0.206	
NUMBER OF DATA POINTS			45
MEAN ABSOLUTE ERROR REFERENCES			1.6 17

NAME TRIDECANE

FORMULA C13 H28

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 12.99 664.10 332.10  
CALC. FROM CORRELATION 13.00 663.38 332.23

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-5.0	3.348	3.000
0.0	2.942	2.703
5.0	2.603	2.444
10.0	2.321	2.218
15.0	2.083	2.020
20.0	1.881	1.846
25.0	1.706	1.691
30.0	1.555	1.554
35.0	1.425	1.432
40.0	1.310	1.323
45.0	1.208	1.225
50.0	1.120	1.138
55.0	1.040	1.059
60.0	0.970	0.987
65.0	0.905	0.923
70.0	0.850	0.864
75.0	0.796	0.810
80.0	0.750	0.761
85.0	0.707	0.717
90.0	0.668	0.676
95.0	0.633	0.638
100.0	0.600	0.604
105.0	0.570	0.572
110.0	0.542	0.543
115.0	0.516	0.516
120.0	0.492	0.490
125.0	0.470	0.467
130.0	0.450	0.445
135.0	0.430	0.425
140.0	0.412	0.406
145.0	0.395	0.389
150.0	0.380	0.372
155.0	0.364	0.357
160.0	0.350	0.343
165.0	0.336	0.329
170.0	0.324	0.316
175.0	0.312	0.304
180.0	0.300	0.293
185.0	0.290	0.283
190.0	0.280	0.273
195.0	0.270	0.263
200.0	0.260	0.254
205.0	0.251	0.246
210.0	0.242	0.238
215.0	0.234	0.230
220.0	0.225	0.223
225.0	0.217	0.216
230.0	0.210	0.210
235.0	0.204	0.204
20.0	1.883	1.846
50.0	1.118	1.138
100.0	0.600	0.604
150.0	0.376	0.372
200.0	0.261	0.254
23.3	1.550	1.742

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES55  
2.1  
17, 18, 19

NAME	TETRADECANE		
FORMULA	C14 H30		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.98	689.85	344.21
CALC. FROM CORRELATION	14.00	692.63	344.45
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
10.0	2.932	2.724	
15.0	2.610	2.471	
20.0	2.334	2.248	
25.0	2.106	2.052	
30.0	1.906	1.879	
35.0	1.734	1.725	
40.0	1.585	1.588	
45.0	1.454	1.466	
50.0	1.341	1.357	
55.0	1.241	1.258	
60.0	1.151	1.170	
65.0	1.071	1.090	
70.0	1.000	1.018	
75.0	0.934	0.952	
80.0	0.877	0.892	
85.0	0.825	0.838	
90.0	0.777	0.788	
95.0	0.733	0.742	
100.0	0.693	0.700	
105.0	0.656	0.662	
110.0	0.623	0.626	
115.0	0.592	0.594	
120.0	0.563	0.563	
125.0	0.536	0.535	
130.0	0.512	0.510	
135.0	0.490	0.485	
140.0	0.468	0.463	
145.0	0.448	0.442	
150.0	0.430	0.423	
155.0	0.412	0.404	
160.0	0.395	0.387	
165.0	0.381	0.371	
170.0	0.365	0.357	
175.0	0.351	0.342	
180.0	0.338	0.329	
185.0	0.326	0.317	
190.0	0.314	0.305	
195.0	0.303	0.294	
200.0	0.292	0.284	
205.0	0.282	0.274	
210.0	0.272	0.265	
215.0	0.262	0.256	
220.0	0.259	0.248	
225.0	0.244	0.240	
230.0	0.236	0.232	
235.0	0.228	0.225	
240.0	0.220	0.218	
245.0	0.213	0.212	
250.0	0.206	0.206	
NUMBER OF DATA POINTS	49		
MEAN ABSOLUTE ERROR	1.8		
REFERENCES	17		

NAME PENTADECANE  
 FORMULA C15 H32

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	15.02	718.51	355.92
CALC. FROM CORRELATION	15.00	718.94	355.70

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
10.0	3.653	3.295
15.0	3.222	2.977
20.0	2.864	2.699
25.0	2.560	2.455
30.0	2.303	2.240
35.0	2.084	2.050
40.0	1.894	1.882
45.0	1.730	1.732
50.0	1.586	1.598
55.0	1.460	1.478
60.0	1.349	1.370
65.0	1.250	1.273
70.0	1.162	1.185
75.0	1.084	1.106
80.0	1.014	1.034
85.0	0.950	0.969
90.0	0.893	0.909
95.0	0.840	0.854
100.0	0.792	0.804
105.0	0.749	0.759
110.0	0.709	0.716
115.0	0.672	0.678
120.0	0.638	0.642
125.0	0.607	0.609
130.0	0.578	0.578
135.0	0.551	0.550
140.0	0.526	0.523
145.0	0.503	0.499
150.0	0.482	0.476
155.0	0.461	0.455
160.0	0.442	0.435
165.0	0.424	0.417
170.0	0.408	0.399
175.0	0.392	0.383
180.0	0.377	0.368
185.0	0.363	0.353
190.0	0.350	0.340
195.0	0.337	0.327
200.0	0.325	0.315
205.0	0.314	0.304
210.0	0.303	0.293
215.0	0.292	0.283
220.0	0.282	0.273
225.0	0.273	0.264
230.0	0.263	0.256
235.0	0.254	0.248
240.0	0.246	0.240
245.0	0.238	0.232
250.0	0.230	0.225
255.0	0.223	0.219
260.0	0.216	0.212
265.0	0.209	0.206
270.0	0.202	0.201

NUMBER OF DATA POINTS  
 MEAN ABSOLUTE ERROR  
 REFERENCES

53  
 2.2  
 17

NAME           HEXADECANE  
 FORMULA       C16 H34

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	16.00	738.30	366.11
CALC. FROM CORRELATION	16.00	742.27	366.11

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	3.471	3.195
25.0	3.090	2.898
30.0	2.758	2.636
35.0	2.480	2.406
40.0	2.248	2.202
45.0	2.040	2.021
50.0	1.860	1.860
55.0	1.706	1.716
60.0	1.572	1.587
65.0	1.452	1.471
70.0	1.345	1.366
75.0	1.250	1.272
80.0	1.165	1.187
85.0	1.089	1.109
90.0	1.020	1.039
95.0	0.955	0.974
100.0	0.900	0.916
105.0	0.848	0.862
110.0	0.801	0.812
115.0	0.759	0.767
120.0	0.719	0.725
125.0	0.682	0.687
130.0	0.648	0.651
135.0	0.617	0.618
140.0	0.589	0.588
145.0	0.561	0.559
150.0	0.537	0.533
155.0	0.513	0.508
160.0	0.491	0.485
165.0	0.471	0.464
170.0	0.452	0.444
175.0	0.434	0.425
180.0	0.417	0.408
185.0	0.401	0.391
190.0	0.386	0.376
195.0	0.372	0.361
200.0	0.359	0.348
205.0	0.345	0.335
210.0	0.333	0.323
215.0	0.322	0.311
220.0	0.310	0.300
225.0	0.300	0.290
230.0	0.289	0.280
235.0	0.280	0.271
240.0	0.270	0.262
245.0	0.261	0.254
250.0	0.253	0.246
255.0	0.245	0.239
260.0	0.237	0.232

NUMBER OF DATA POINTS	49
MEAN ABSOLUTE ERROR	2.1
REFERENCES	17

NAME HEPTADECANE

FORMULA C17 H36

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 17.01 757.88 375.90  
CALC. FROM CORRELATION 17.00 762.60 375.81

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	3.700	3.376
30.0	3.286	3.064
35.0	2.938	2.789
40.0	2.641	2.546
45.0	2.388	2.332
50.0	2.169	2.141
55.0	1.980	1.971
60.0	1.815	1.819
65.0	1.669	1.682
70.0	1.541	1.560
75.0	1.428	1.449
80.0	1.326	1.349
85.0	1.235	1.259
90.0	1.155	1.177
95.0	1.081	1.102
100.0	1.015	1.034
105.0	0.955	0.971
110.0	0.900	0.914
115.0	0.850	0.862
120.0	0.804	0.814
125.0	0.762	0.769
130.0	0.723	0.728
135.0	0.687	0.690
140.0	0.654	0.655
145.0	0.624	0.623
150.0	0.595	0.593
155.0	0.569	0.565
160.0	0.544	0.539
165.0	0.521	0.514
170.0	0.499	0.492
175.0	0.479	0.470
180.0	0.460	0.450
185.0	0.442	0.432
190.0	0.425	0.414
195.0	0.409	0.398
200.0	0.394	0.382
205.0	0.380	0.368
210.0	0.366	0.354
215.0	0.353	0.341
220.0	0.341	0.329
225.0	0.329	0.317
230.0	0.318	0.306
235.0	0.307	0.296
240.0	0.297	0.286
245.0	0.287	0.277
250.0	0.278	0.268
255.0	0.269	0.260
260.0	0.260	0.252
265.0	0.252	0.244
270.0	0.245	0.237
275.0	0.236	0.230
280.0	0.230	0.224
285.0	0.223	0.217
290.0	0.216	0.211
295.0	0.209	0.206
300.0	0.202	0.200
50.0	2.170	2.141
100.0	1.018	1.034
150.0	0.598	0.593
200.0	0.393	0.382
250.0	0.278	0.268
300.0	0.203	0.200

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES62  
2.3  
17, 19

NAME OCTADECANE

FORMULA C18 H38

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 18.01 777.40 385.00

CALC. FROM CORRELATION 18.00 779.91 384.91

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	3.880	3.519
35.0	3.445	3.196
40.0	3.084	2.912
45.0	2.774	2.661
50.0	2.508	2.439
55.0	2.280	2.241
60.0	2.081	2.064
65.0	1.906	1.906
70.0	1.755	1.764
75.0	1.620	1.636
80.0	1.500	1.521
85.0	1.394	1.417
90.0	1.299	1.322
95.0	1.213	1.236
100.0	1.137	1.158
105.0	1.067	1.087
110.0	1.003	1.022
115.0	0.945	0.962
120.0	0.893	0.907
125.0	0.844	0.856
130.0	0.801	0.810
135.0	0.760	0.767
140.0	0.722	0.727
145.0	0.687	0.690
150.0	0.655	0.656
155.0	0.625	0.624
160.0	0.597	0.595
165.0	0.571	0.567
170.0	0.546	0.542
175.0	0.524	0.518
180.0	0.502	0.495
185.0	0.483	0.474
190.0	0.464	0.455
195.0	0.447	0.436
200.0	0.430	0.419
205.0	0.414	0.403
210.0	0.399	0.387
215.0	0.384	0.373
220.0	0.371	0.359
225.0	0.358	0.346
230.0	0.346	0.334
235.0	0.334	0.323
240.0	0.323	0.312
245.0	0.312	0.301
250.0	0.302	0.291
255.0	0.290	0.282
260.0	0.280	0.273
265.0	0.270	0.265
270.0	0.270	0.257
275.0	0.260	0.249
280.0	0.250	0.242
285.0	0.240	0.235
290.0	0.230	0.228
295.0	0.230	0.222
300.0	0.220	0.216
305.0	0.210	0.210
310.0	0.210	0.205
315.0	0.200	0.199

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES

58  
2.2  
17



NAME           NONADECANE

FORMULA       C19 H40

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	19.00	793.62	393.54
CALC. FROM CORRELATION	19.00	794.18	393.54

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
35.0	4.021	3.624
40.0	3.577	3.296
45.0	3.202	3.007
50.0	2.882	2.751
55.0	2.608	2.524
60.0	2.372	2.321
65.0	2.165	2.140
70.0	1.986	1.978
75.0	1.828	1.833
80.0	1.688	1.701
85.0	1.563	1.583
90.0	1.454	1.475
95.0	1.355	1.378
100.0	1.265	1.289
105.0	1.186	1.208
110.0	1.113	1.134
115.0	1.047	1.067
120.0	0.986	1.005
125.0	0.931	0.948
130.0	0.881	0.895
135.0	0.836	0.847
140.0	0.793	0.802
145.0	0.754	0.761
150.0	0.717	0.722
155.0	0.684	0.687
160.0	0.652	0.654
165.0	0.623	0.623
170.0	0.596	0.594
175.0	0.571	0.568
180.0	0.547	0.543
185.0	0.524	0.519
190.0	0.504	0.497
195.0	0.485	0.477
200.0	0.467	0.458
205.0	0.449	0.439
210.0	0.432	0.422
215.0	0.416	0.406
220.0	0.401	0.391
225.0	0.387	0.377
230.0	0.374	0.363
235.0	0.361	0.351
240.0	0.349	0.339
245.0	0.337	0.327
250.0	0.326	0.316
255.0	0.320	0.306
260.0	0.310	0.296
265.0	0.300	0.287
270.0	0.290	0.278
275.0	0.280	0.270
280.0	0.270	0.262
285.0	0.260	0.254
290.0	0.250	0.247
295.0	0.250	0.240
300.0	0.240	0.233
305.0	0.230	0.227
310.0	0.220	0.221
315.0	0.220	0.215
320.0	0.210	0.209
325.0	0.200	0.204

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES

59  
2.3  
17

NAME            EICOSANE  
 FORMULA        C20 H42  
 CONSTANTS                    NE            B            TO(DEG.K)  
 FROM EXPERIMENTAL DATA    19.98       811.29       401.67  
 CALC. FROM CORRELATION    20.00       805.39       401.84

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
40.0	4.142	3.694
45.0	3.690	3.366
50.0	3.306	3.076
55.0	2.979	2.818
60.0	2.698	2.589
65.0	2.454	2.385
70.0	2.242	2.201
75.0	2.057	2.037
80.0	1.894	1.889
85.0	1.750	1.756
90.0	1.622	1.635
95.0	1.509	1.525
100.0	1.406	1.426
105.0	1.314	1.335
110.0	1.231	1.252
115.0	1.156	1.177
120.0	1.088	1.107
125.0	1.025	1.044
130.0	0.968	0.985
135.0	0.916	0.931
140.0	0.868	0.881
145.0	0.825	0.835
150.0	0.784	0.793
155.0	0.746	0.753
160.0	0.711	0.716
165.0	0.678	0.682
170.0	0.648	0.650
175.0	0.620	0.621
180.0	0.594	0.593
185.0	0.569	0.567
190.0	0.546	0.543
195.0	0.524	0.520
200.0	0.504	0.499
205.0	0.485	0.479
210.0	0.467	0.460
215.0	0.450	0.442
220.0	0.434	0.425
225.0	0.418	0.410
230.0	0.403	0.395
235.0	0.389	0.381
240.0	0.376	0.367
245.0	0.364	0.355
250.0	0.352	0.343
255.0	0.339	0.332
260.0	0.329	0.321
265.0	0.319	0.311
270.0	0.309	0.301
275.0	0.299	0.292
285.0	0.280	0.275
290.0	0.270	0.267
295.0	0.260	0.259
300.0	0.260	0.252
305.0	0.250	0.245
310.0	0.240	0.238
315.0	0.230	0.232
320.0	0.230	0.226
325.0	0.220	0.220
330.0	0.210	0.214
335.0	0.210	0.209
340.0	0.200	0.204
280.0	0.289	0.283

NUMBER OF DATA POINTS  
 MEAN ABSOLUTE ERROR  
 REFERENCES

61  
 1.9  
 17

NAME	HEXACOSANE		
FORMULA	C26 H54		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	26.00	887.83	450.82
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
60.0	5.300	4.960	
NUMBER OF DATA POINTS	1		
MEAN ABSOLUTE ERROR	6.4		
REFERENCES	25		

NAME	TRIACONTANE		
FORMULA	C30 H62		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	30.00	942.79	483.47
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
78.0	5.000	5.429	
NUMBER OF DATA POINTS	1		
MEAN ABSOLUTE ERROR	8.6		
REFERENCES	25		

NAME 2-METHYLPROPANE (ISOBUTANE)  
 FORMULA C4 H10

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	4.44	302.51	170.20
CALC. FROM CORRELATION	4.44	310.97	170.20

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-80.0	0.626	0.606
-75.0	0.574	0.552
-70.0	0.528	0.505
-65.0	0.487	0.464
-60.0	0.451	0.428
-55.0	0.419	0.397
-50.0	0.391	0.368
-45.0	0.365	0.343
-40.0	0.342	0.321
-35.0	0.320	0.301
-30.0	0.301	0.283
-25.0	0.283	0.267
-20.0	0.267	0.252
-15.0	0.252	0.239

NUMBER OF DATA POINTS	14
MEAN ABSOLUTE ERROR	5.2
REFERENCES	17

NAME 2-METHYLBUTANE (ISOPENTANE)  
 FORMULA C5 H12

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	5.27	367.32	191.58
CALC. FROM CORRELATION	5.20	351.95	189.83

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.272	0.272
5.0	0.258	0.258
10.0	0.245	0.245
15.0	0.234	0.233
20.0	0.222	0.222
25.0	0.211	0.212
0.0	0.273	0.272
20.0	0.223	0.222
-50.0	0.550	0.529
-45.0	0.510	0.488
-40.0	0.470	0.452
-35.0	0.430	0.421
-30.0	0.403	0.392
-25.0	0.376	0.367
-20.0	0.352	0.344
-15.0	0.330	0.323
-10.0	0.310	0.304
-5.0	0.293	0.287
0.0	0.277	0.272
5.0	0.262	0.258
10.0	0.248	0.245
15.0	0.236	0.233
20.0	0.224	0.222
25.0	0.214	0.212

NUMBER OF DATA POINTS	24
MEAN ABSOLUTE ERROR	1.6
REFERENCES	17, 19, 20

NAME 2-METHYL PENTANE (ISOHEXANE)  
 FORMULA C6 H14  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 5.96 384.13 208.27  
 CALC. FROM CORRELATION 5.96 391.34 208.27

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.6	0.369	0.355
5.6	0.349	0.335
10.3	0.332	0.318
15.3	0.315	0.301
20.5	0.298	0.284
25.4	0.284	0.270
32.0	0.267	0.253
36.7	0.255	0.242
41.1	0.245	0.232
45.4	0.235	0.224
51.2	0.223	0.213
55.4	0.215	0.205
0.0	0.371	0.358
5.0	0.350	0.337
10.0	0.332	0.318
15.0	0.315	0.301
20.0	0.299	0.286
25.0	0.285	0.271
30.0	0.272	0.258
35.0	0.259	0.246
40.0	0.247	0.235
50.0	0.225	0.215
60.0	0.206	0.198
0.0	0.376	0.358
20.0	0.306	0.286
40.0	0.254	0.235

NUMBER OF DATA POINTS 26  
 MEAN ABSOLUTE ERROR 4.7  
 REFERENCES 18, 19, 20

NAME 2,2-DIMETHYL BUTANE (NEOHEXANE)  
 FORMULA C6 H14  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 6.77 438.44 226.67  
 CALC. FROM CORRELATION 6.89 437.36 229.29

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.477	0.494
15.0	0.397	0.408
20.0	0.375	0.384
25.0	0.351	0.363
30.0	0.330	0.343

NUMBER OF DATA POINTS 5  
 MEAN ABSOLUTE ERROR 3.2  
 REFERENCES 18

NAME 2-METHYLHEXANE (ISOHEPTANE)

FORMULA C7 H16

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	6.70	417.46	225.13
CALC. FROM CORRELATION	6.72	429.13	225.57

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.476	0.466
5.0	0.448	0.437
10.0	0.424	0.410
15.0	0.400	0.386
20.0	0.379	0.364
25.0	0.359	0.344
30.0	0.341	0.326
35.0	0.325	0.309
40.0	0.309	0.294
45.0	0.294	0.280
50.0	0.281	0.266
55.0	0.268	0.254
60.0	0.257	0.243
65.0	0.245	0.233
70.0	0.235	0.223
75.0	0.225	0.214
80.0	0.216	0.205
85.0	0.207	0.198
90.0	0.198	0.190
0.0	0.481	0.466
20.0	0.384	0.364
40.0	0.315	0.294
0.4	0.474	0.464
7.7	0.434	0.422
15.9	0.396	0.382
24.6	0.361	0.346
32.3	0.333	0.318
40.0	0.309	0.294
49.0	0.284	0.269
56.5	0.265	0.251
63.9	0.248	0.235
71.8	0.232	0.220
80.7	0.215	0.204
88.4	0.201	0.193

NUMBER OF DATA POINTS	34
MEAN ABSOLUTE ERROR	4.4
REFERENCES	18, 19, 20

NAME            2,2-DIMETHYLPROPANE (NEOPENTANE)  
 FORMULA        C5 H12  
 CONSTANTS                    NE            B            TO(DEG.K)  
 FROM EXPERIMENTAL DATA    6.40       542.12     218.42  
 CALC. FROM CORRELATION    6.13       399.93     212.24  
 TEMP.                            VISCOSITY  
 (DEG.C)                            (CP)  
                                   EXP.            CALC.  
   -10.0                    0.390            0.432  
    -5.0                    0.356            0.405  
     0.0                    0.327            0.380  
     5.0                    0.302            0.358  
  
 NUMBER OF DATA POINTS            4  
 MEAN ABSOLUTE ERROR            14.8  
 REFERENCES                        17

NAME            2,3-DIMETHYLBUTANE  
 FORMULA        C6 H14  
 CONSTANTS                    NE            B            TO(DEG.K)  
 FROM EXPERIMENTAL DATA    6.87       444.19     228.86  
 CALC. FROM CORRELATION    6.89       437.36     229.29  
 TEMP.                            VISCOSITY  
 (DEG.C)                            (CP)  
                                   EXP.            CALC.  
     0.0                    0.495            0.494  
    15.0                    0.409            0.408  
    20.0                    0.385            0.384  
    25.0                    0.361            0.363  
    30.0                    0.342            0.343  
  
 NUMBER OF DATA POINTS            5  
 MEAN ABSOLUTE ERROR            0.3  
 REFERENCES                        18

NAME	ETHENE		
FORMULA	C2 H4		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	1.86	168.98	93.94
CALC. FROM CORRELATION	1.76	102.98	90.67
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-165.0	0.600	0.655	
-160.0	0.510	0.595	
-155.0	0.450	0.544	
-150.0	0.390	0.502	
-145.0	0.350	0.465	
-140.0	0.310	0.434	
-135.0	0.280	0.407	
-130.0	0.260	0.383	
-125.0	0.230	0.362	
-120.0	0.210	0.344	
-115.0	0.200	0.328	
-110.0	0.180	0.313	
-105.0	0.160	0.300	
NUMBER OF DATA POINTS	13		
MEAN ABSOLUTE ERROR	45.2		
REFERENCES	17		

NAME	PROPENE		
FORMULA	C3 H6		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	3.07	273.84	131.63
CALC. FROM CORRELATION	2.72	166.66	121.09
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-185.0	15.000	3.267	
-180.0	8.590	2.586	
-175.0	5.310	2.097	
-170.0	3.540	1.735	
-165.0	2.560	1.461	
-160.0	1.970	1.249	
-155.0	1.580	1.082	
-150.0	1.290	0.948	
-145.0	1.070	0.840	
-140.0	0.910	0.750	
-135.0	0.780	0.676	
-130.0	0.680	0.613	
-125.0	0.600	0.560	
-120.0	0.540	0.515	
-115.0	0.480	0.476	
-110.0	0.440	0.442	
-105.0	0.400	0.412	
-100.0	0.370	0.386	
-95.0	0.350	0.362	
NUMBER OF DATA POINTS	19		
MEAN ABSOLUTE ERROR	25.4		
REFERENCES	17		



NAME 1-BUTENE

FORMULA C4 H8

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	3.77	256.30	151.86
CALC. FROM CORRELATION	3.68	227.86	149.32

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-115.0	0.880	0.822
-110.0	0.790	0.742
-105.0	0.700	0.675
-100.0	0.640	0.617
-95.0	0.580	0.566
-90.0	0.530	0.523
-85.0	0.480	0.484
-80.0	0.450	0.451
-75.0	0.420	0.421
-70.0	0.390	0.394
-65.0	0.360	0.370
-60.0	0.340	0.349
-55.0	0.320	0.330
-50.0	0.300	0.313
-45.0	0.280	0.297
-40.0	0.260	0.283
-35.0	0.250	0.270

NUMBER OF DATA POINTS	17
MEAN ABSOLUTE ERROR	3.6
REFERENCES	17

NAME 1-PENTENE

FORMULA C5 H10

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	4.61	305.25	174.70
CALC. FROM CORRELATION	4.64	286.55	175.48

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-90.0	0.850	0.854
-85.0	0.770	0.776
-80.0	0.700	0.709
-75.0	0.640	0.650
-70.0	0.590	0.599
-65.0	0.540	0.554
-60.0	0.500	0.515
-55.0	0.460	0.479
-50.0	0.430	0.448
-45.0	0.400	0.420
-40.0	0.380	0.395
-35.0	0.350	0.372
-30.0	0.330	0.351
-25.0	0.310	0.332
-20.0	0.300	0.315
-15.0	0.280	0.300
-10.0	0.270	0.286
-5.0	0.250	0.273
0.0	0.240	0.261

NUMBER OF DATA POINTS	19
MEAN ABSOLUTE ERROR	4.4
REFERENCES	17

NAME 1-HEXENE

FORMULA C6 H12

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 5.52 357.43 197.74

CALC. FROM CORRELATION 5.60 342.72 199.68

TEMP. (DEG.C) VISCOSITY (CP)

	EXP.	CALC.
-55.0	0.690	0.716
-50.0	0.630	0.660
-45.0	0.580	0.611
-40.0	0.540	0.567
-35.0	0.510	0.528
-30.0	0.470	0.493
-25.0	0.440	0.462
-20.0	0.420	0.434
-15.0	0.390	0.409
-10.0	0.370	0.385
-5.0	0.350	0.365
0.0	0.330	0.345
5.0	0.310	0.328
10.0	0.290	0.312
15.0	0.270	0.297
20.0	0.260	0.284
25.0	0.250	0.271
30.0	0.240	0.260
35.0	0.230	0.249
40.0	0.220	0.239
45.0	0.210	0.230
50.0	0.200	0.221
55.0	0.200	0.213
60.0	0.190	0.205

NUMBER OF DATA POINTS 24

MEAN ABSOLUTE ERROR 6.4

REFERENCES 17

NAME 1-HEPTENE

FORMULA C7 H14

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 6.22 368.69 214.32

CALC. FROM CORRELATION 6.55 395.80 221.80

TEMP. (DEG.C) VISCOSITY (CP)

	EXP.	CALC.
0.0	0.440	0.462
5.0	0.410	0.435
10.0	0.390	0.410
15.0	0.370	0.388
20.0	0.350	0.368
25.0	0.340	0.349
30.0	0.320	0.332
35.0	0.310	0.316
40.0	0.290	0.302
45.0	0.280	0.288
50.0	0.270	0.276
55.0	0.260	0.264
60.0	0.250	0.253
65.0	0.240	0.243
70.0	0.230	0.234
75.0	0.220	0.225
80.0	0.220	0.217
85.0	0.210	0.209
90.0	0.200	0.202

NUMBER OF DATA POINTS 19

MEAN ABSOLUTE ERROR 2.9

REFERENCES 17

NAME 1-OCTENE

A 27

FORMULA C8 H16

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 7.28 418.82 237.63  
CALC. FROM CORRELATION 7.51 446.89 242.41

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.611	0.620
5.0	0.569	0.580
10.0	0.531	0.543
15.0	0.497	0.510
20.0	0.469	0.480
25.0	0.446	0.452
30.0	0.424	0.427
35.0	0.402	0.404
40.0	0.382	0.383
45.0	0.363	0.364
50.0	0.346	0.346
55.0	0.330	0.330
60.0	0.316	0.315
65.0	0.303	0.301
70.0	0.291	0.288
75.0	0.280	0.275
80.0	0.270	0.264
85.0	0.260	0.254
90.0	0.250	0.244
95.0	0.242	0.235
100.0	0.234	0.226
105.0	0.230	0.218
110.0	0.220	0.210
115.0	0.210	0.203

NUMBER OF DATA POINTS 24  
MEAN ABSOLUTE ERROR 1.8  
REFERENCES 17

NAME 1-NONENE

FORMULA C9 H18

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 8.34 471.00 258.92  
CALC. FROM CORRELATION 8.47 495.39 261.40

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.836	0.829
5.0	0.772	0.769
10.0	0.713	0.715
15.0	0.660	0.667
20.0	0.618	0.623
25.0	0.584	0.584
30.0	0.552	0.548
35.0	0.519	0.516
40.0	0.491	0.486
45.0	0.464	0.459
50.0	0.439	0.434
55.0	0.417	0.412
60.0	0.397	0.391
65.0	0.379	0.371
70.0	0.362	0.354
75.0	0.347	0.337
80.0	0.333	0.322
85.0	0.319	0.308
90.0	0.306	0.294
95.0	0.295	0.282
100.0	0.284	0.271
105.0	0.270	0.260
110.0	0.260	0.250
115.0	0.260	0.240

NUMBER OF DATA POINTS 24  
MEAN ABSOLUTE ERROR 2.2  
REFERENCES 17

NAME 1-DECENE

A

FORMULA C10 H20

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 9.37 518.37 277.80  
CALC. FROM CORRELATION 9.43 541.28 278.85

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.127	1.098
5.0	1.029	1.011
10.0	0.942	0.934
15.0	0.863	0.866
20.0	0.803	0.804
25.0	0.754	0.749
30.0	0.707	0.699
35.0	0.662	0.654
40.0	0.620	0.613
45.0	0.582	0.576
50.0	0.549	0.542
55.0	0.519	0.511
60.0	0.492	0.483
65.0	0.467	0.457
70.0	0.444	0.433
75.0	0.424	0.411
80.0	0.405	0.390
85.0	0.387	0.372
90.0	0.370	0.354
95.0	0.355	0.338
100.0	0.341	0.323
105.0	0.330	0.309
110.0	0.320	0.296
115.0	0.300	0.284

NUMBER OF DATA POINTS 24  
MEAN ABSOLUTE ERROR 2.7  
REFERENCES 17

NAME 1-UNDECENE

FORMULA C11 H22

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 10.39 566.26 294.89  
CALC. FROM CORRELATION 10.39 584.55 294.89

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.500	1.438
5.0	1.360	1.316
10.0	1.225	1.208
15.0	1.115	1.113
20.0	1.028	1.027
25.0	0.958	0.951
30.0	0.892	0.883
35.0	0.831	0.822
40.0	0.775	0.766
45.0	0.724	0.716
50.0	0.678	0.671
55.0	0.637	0.630
60.0	0.601	0.592
65.0	0.568	0.558
70.0	0.539	0.526
75.0	0.512	0.497
80.0	0.487	0.471
85.0	0.464	0.447
90.0	0.442	0.424
95.0	0.423	0.403
100.0	0.404	0.384
105.0	0.390	0.366
110.0	0.370	0.349
115.0	0.360	0.334

NUMBER OF DATA POINTS 24  
MEAN ABSOLUTE ERROR 2.7  
REFERENCES 17

NAME 1-DODECENE

FORMULA C12 H24

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	11.38	615.67	310.07
CALC. FROM CORRELATION	11.34	624.77	309.48

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.960	1.855
5.0	1.760	1.688
10.0	1.580	1.541
15.0	1.420	1.411
20.0	1.300	1.295
25.0	1.203	1.193
30.0	1.114	1.102
35.0	1.031	1.020
40.0	0.956	0.947
45.0	0.888	0.881
50.0	0.828	0.821
55.0	0.775	0.768
60.0	0.728	0.719
65.0	0.684	0.674
70.0	0.645	0.634
75.0	0.610	0.597
80.0	0.579	0.563
85.0	0.549	0.532
90.0	0.521	0.503
95.0	0.497	0.477
100.0	0.475	0.452
105.0	0.450	0.430
110.0	0.430	0.409
115.0	0.410	0.390

NUMBER OF DATA POINTS	24
MEAN ABSOLUTE ERROR	2.4
REFERENCES	17

NAME 1-TRIDECENE

FORMULA C13 H26

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	12.35	658.16	323.71
CALC. FROM CORRELATION	12.30	662.76	323.04

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	2.530	2.369
5.0	2.250	2.143
10.0	2.000	1.945
15.0	1.790	1.771
20.0	1.630	1.618
25.0	1.500	1.483
30.0	1.380	1.363
35.0	1.266	1.256
40.0	1.167	1.161
45.0	1.079	1.075
50.0	1.002	0.998
55.0	0.934	0.929
60.0	0.872	0.866
65.0	0.816	0.810
70.0	0.767	0.758
75.0	0.723	0.711
80.0	0.664	0.668
85.0	0.646	0.629
90.0	0.612	0.593
95.0	0.581	0.560
100.0	0.552	0.530
105.0	0.530	0.502
110.0	0.500	0.477
115.0	0.480	0.453

NUMBER OF DATA POINTS	24
MEAN ABSOLUTE ERROR	2.3
REFERENCES	17

NAME 1-TETRADECENE

A

FORMULA C14 H28

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.31	697.49	336.13
CALC. FROM CORRELATION	13.26	698.06	335.51

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	3.220	2.985
5.0	2.850	2.685
10.0	2.510	2.425
15.0	2.230	2.197
20.0	2.010	1.998
25.0	1.830	1.822
30.0	1.680	1.667
35.0	1.540	1.530
40.0	1.410	1.408
45.0	1.300	1.299
50.0	1.200	1.201
55.0	1.114	1.113
60.0	1.037	1.034
65.0	0.966	0.963
70.0	0.903	0.899
75.0	0.848	0.840
80.0	0.800	0.787
85.0	0.754	0.739
90.0	0.712	0.694
95.0	0.673	0.654
100.0	0.638	0.617
105.0	0.610	0.583
110.0	0.580	0.551
115.0	0.550	0.522

NUMBER OF DATA POINTS 24  
MEAN ABSOLUTE ERROR 2.1  
REFERENCES 17

NAME 1-PENTADECENE

FORMULA C15 H30

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	14.26	739.13	347.46
CALC. FROM CORRELATION	14.22	730.66	347.00

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	4.080	3.709
5.0	3.560	3.320
10.0	3.110	2.984
15.0	2.750	2.691
20.0	2.470	2.436
25.0	2.240	2.213
30.0	2.040	2.016
35.0	1.860	1.843
40.0	1.700	1.689
45.0	1.550	1.552
50.0	1.430	1.430
55.0	1.320	1.321
60.0	1.221	1.223
65.0	1.135	1.135
70.0	1.059	1.056
75.0	0.993	0.984
80.0	0.930	0.919
85.0	0.872	0.860
90.0	0.821	0.806
95.0	0.775	0.757
100.0	0.733	0.712
105.0	0.700	0.671
110.0	0.660	0.633
115.0	0.620	0.598

NUMBER OF DATA POINTS 24  
MEAN ABSOLUTE ERROR 2.1  
REFERENCES 17

NAME 1-HEXADECENE

FORMULA C16 H32

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	15.20	767.48	357.85
CALC. FROM CORRELATION	15.18	760.54	357.63

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
5.0	4.420	4.051
10.0	3.810	3.625
15.0	3.350	3.256
20.0	3.000	2.936
25.0	2.700	2.656
30.0	2.440	2.411
35.0	2.220	2.195
40.0	2.020	2.005
45.0	1.840	1.836
50.0	1.690	1.686
55.0	1.550	1.552
60.0	1.430	1.433
65.0	1.320	1.326
70.0	1.230	1.229
75.0	1.150	1.143
80.0	1.075	1.064
85.0	1.005	0.993
90.0	0.942	0.928
95.0	0.886	0.869
100.0	0.836	0.816
105.0	0.790	0.767
110.0	0.750	0.722
115.0	0.710	0.680

NUMBER OF DATA POINTS	23
MEAN ABSOLUTE ERROR	1.9
REFERENCES	17

NAME 1-HEPTADECENE

FORMULA C17 H34

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	16.15	790.25	367.61
CALC. FROM CORRELATION	16.13	787.40	367.41

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
15.0	4.070	3.885
20.0	3.600	3.490
25.0	3.240	3.146
30.0	2.910	2.846
35.0	2.630	2.583
40.0	2.370	2.351
45.0	2.160	2.147
50.0	1.970	1.965
55.0	1.810	1.804
60.0	1.660	1.661
65.0	1.530	1.532
70.0	1.420	1.417
75.0	1.330	1.314
80.0	1.234	1.220
85.0	1.152	1.136
90.0	1.074	1.059
95.0	1.010	0.990
100.0	0.949	0.927
105.0	0.890	0.869
110.0	0.840	0.816
115.0	0.790	0.768

NUMBER OF DATA POINTS	21
MEAN ABSOLUTE ERROR	1.6
REFERENCES	17

NAME 1-OCTADECENE

A :

FORMULA C18 H36

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 17.12 816.19 376.93  
CALC. FROM CORRELATION 17.09 811.79 376.65

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	4.310	4.110
25.0	3.850	3.693
30.0	3.450	3.330
35.0	3.090	3.013
40.0	2.780	2.735
45.0	2.510	2.490
50.0	2.280	2.274
55.0	2.080	2.082
60.0	1.920	1.911
65.0	1.770	1.759
70.0	1.650	1.623
75.0	1.520	1.501
80.0	1.410	1.391
85.0	1.310	1.292
90.0	1.207	1.202
95.0	1.142	1.121
100.0	1.071	1.047
105.0	1.010	0.980
110.0	0.950	0.919
115.0	0.890	0.863

NUMBER OF DATA POINTS 20  
MEAN ABSOLUTE ERROR 1.9  
REFERENCES 17

NAME 1-NONADECENE

FORMULA C19 H38

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 18.07 844.46 385.53  
CALC. FROM CORRELATION 18.05 833.40 385.35

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	4.560	4.290
30.0	4.070	3.858
35.0	3.630	3.481
40.0	3.250	3.152
45.0	2.920	2.862
50.0	2.640	2.607
55.0	2.410	2.382
60.0	2.200	2.182
65.0	2.010	2.004
70.0	1.870	1.845
75.0	1.730	1.702
80.0	1.600	1.574
85.0	1.480	1.459
90.0	1.380	1.356
95.0	1.290	1.262
100.0	1.210	1.177
105.0	1.130	1.099
110.0	1.060	1.029
115.0	0.990	0.965

NUMBER OF DATA POINTS 19  
MEAN ABSOLUTE ERROR 2.4  
REFERENCES 17



NAME 1-EICOSENE  
 FORMULA C20 H40

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	19.04	860.96	393.88
CALC. FROM CORRELATION	19.01	852.21	393.63

TEMP. (DEG.C)	EXP.	VISCOSITY (CP)	CALC.
35.0	4.220		3.985
40.0	3.760		3.600
45.0	3.370		3.262
50.0	3.040		2.966
55.0	2.760		2.703
60.0	2.510		2.471
65.0	2.290		2.265
70.0	2.110		2.082
75.0	1.960		1.918
80.0	1.810		1.770
85.0	1.670		1.638
90.0	1.550		1.519
95.0	1.450		1.412
100.0	1.350		1.314
105.0	1.260		1.226
110.0	1.180		1.146
115.0	1.100		1.073

NUMBER OF DATA POINTS	17
MEAN ABSOLUTE ERROR	2.5
REFERENCES	17

NAME 2-METHYL-2-BUTENE  
 FORMULA C5 H10

CONSTANTS	NE	R	TO(DEG.K)
FROM EXPERIMENTAL DATA	4.83	322.47	180.43
CALC. FROM CORRELATION	4.84	307.40	180.68

TEMP. (DEG.C)	EXP.	VISCOSITY (CP)	CALC.
0.2	0.253		0.265
5.5	0.241		0.252
10.2	0.231		0.242
15.8	0.219		0.230
20.0	0.211		0.222
25.8	0.201		0.212
30.7	0.193		0.204
32.6	0.190		0.201

NUMBER OF DATA POINTS	8
MEAN ABSOLUTE ERROR	5.3
REFERENCES	18

NAME 2-METHYL-1,3 BUTADIENE (ISOPRENE)  
 FORMULA C5 H8

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	4.91	328.49	182.48
CALC. FROM CORRELATION	4.48	285.88	171.26

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.259	0.238
5.6	0.246	0.227
10.3	0.236	0.218
15.3	0.225	0.210
20.4	0.215	0.202
25.3	0.206	0.194
28.9	0.199	0.189
32.0	0.194	0.185
29.9	0.198	0.188
0.0	0.259	0.238
5.0	0.247	0.228
10.0	0.236	0.219
15.0	0.225	0.210
20.0	0.215	0.202
25.0	0.206	0.195
30.0	0.197	0.188

NUMBER OF DATA POINTS	16
MEAN ABSOLUTE ERROR	6.4
REFERENCES	18, 19

NAME 2,3-DIMETHYL-1,3-BUTADIENE  
 FORMULA C6 H10

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	5.71	375.21	202.33
CALC. FROM CORRELATION	5.11	323.30	187.57

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	0.337	0.287
5.9	0.317	0.272
10.8	0.301	0.260
15.5	0.286	0.249
20.8	0.272	0.238
25.5	0.260	0.229
30.7	0.247	0.219
36.1	0.235	0.210
42.0	0.223	0.201
46.8	0.214	0.194
51.5	0.205	0.187
56.2	0.197	0.181

NUMBER OF DATA POINTS	12
MEAN ABSOLUTE ERROR	11.5
REFERENCES	18

NAME CYCLOHEXANE

A 35

FORMULA C6 H12

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	10.14	653.62	290.84
CALC. FROM CORRELATION	7.48	364.27	241.80

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
10.0	1.178	0.602
15.0	1.070	0.572
20.0	0.978	0.545
25.0	0.896	0.519
30.0	0.824	0.496
35.0	0.760	0.474
40.0	0.703	0.454
45.0	0.652	0.435
50.0	0.605	0.418
55.0	0.564	0.401
60.0	0.527	0.386
65.0	0.493	0.372
70.0	0.463	0.359
75.0	0.436	0.347
80.0	0.410	0.335

NUMBER OF DATA POINTS	15
MEAN ABSOLUTE ERROR	33.4
REFERENCES	17

NAME METHYLCYCLOHEXANE

FORMULA C7 H14

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	9.02	528.41	271.58
CALC. FROM CORRELATION	8.48	434.45	261.58

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-25.0	1.545	1.230
-20.0	1.405	1.136
-15.0	1.276	1.052
-10.0	1.171	0.977
-5.0	1.075	0.910
0.0	0.991	0.850
5.0	0.915	0.796
10.0	0.849	0.747
15.0	0.787	0.703
20.0	0.732	0.662
25.0	0.683	0.626
30.0	0.640	0.592
35.0	0.598	0.561
40.0	0.563	0.533
45.0	0.530	0.507
50.0	0.499	0.483
55.0	0.471	0.460
60.0	0.445	0.440
65.0	0.421	0.421
70.0	0.400	0.403
75.0	0.380	0.386
80.0	0.360	0.371
85.0	0.340	0.357
90.0	0.330	0.343
95.0	0.310	0.331
100.0	0.300	0.319

NUMBER OF DATA POINTS	26
MEAN ABSOLUTE ERROR	8.2
REFERENCES	17

NAME	ETHYLCYCLOHEXANE		
FORMULA	C8 H16		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	9.54	506.43	280.76
CALC. FROM CORRELATION	9.48	501.80	279.72
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-25.0	1.794	1.691	
-20.0	1.626	1.542	
-15.0	1.476	1.412	
-10.0	1.350	1.297	
-5.0	1.238	1.195	
0.0	1.138	1.104	
5.0	1.050	1.023	
10.0	0.973	0.951	
15.0	0.903	0.886	
20.0	0.841	0.827	
25.0	0.785	0.775	
30.0	0.735	0.727	
35.0	0.690	0.683	
40.0	0.650	0.643	
45.0	0.613	0.607	
50.0	0.580	0.574	
55.0	0.549	0.543	
60.0	0.522	0.516	
65.0	0.496	0.490	
70.0	0.474	0.466	
75.0	0.449	0.444	
80.0	0.430	0.424	
85.0	0.420	0.405	
90.0	0.400	0.387	
95.0	0.380	0.371	
100.0	0.370	0.355	
105.0	0.360	0.341	
110.0	0.340	0.328	
NUMBER OF DATA POINTS	28		
MEAN ABSOLUTE ERROR	2.5		
REFERENCES	17		

NAME PROPYL CYCLOHEXANE

FORMULA C9 H18

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	10.33	549.08	293.93
CALC. FROM CORRELATION	10.48	566.30	296.33

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-25.0	2.343	2.349
-20.0	2.094	2.118
-15.0	1.875	1.917
-10.0	1.700	1.741
-5.0	1.541	1.588
0.0	1.403	1.452
5.0	1.283	1.333
10.0	1.179	1.227
15.0	1.085	1.133
20.0	1.003	1.049
25.0	0.931	0.973
30.0	0.868	0.906
35.0	0.810	0.845
40.0	0.758	0.789
45.0	0.712	0.739
50.0	0.670	0.694
55.0	0.633	0.653
60.0	0.600	0.615
65.0	0.568	0.580
70.0	0.541	0.549
75.0	0.520	0.519
80.0	0.490	0.493
85.0	0.470	0.468
90.0	0.450	0.445
95.0	0.440	0.424
100.0	0.420	0.404
105.0	0.400	0.386
110.0	0.390	0.369

NUMBER OF DATA POINTS	28
MEAN ABSOLUTE ERROR	2.9
REFERENCES	17

NAME BUTYLCYCLOHEXANE

FORMULA C10 H20

A 38

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 11.47 598.30 311.39  
CALC. FROM CORRELATION 11.48 627.94 311.53

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-20.0	2.931	2.916
-15.0	2.612	2.610
-10.0	2.343	2.347
-5.0	2.104	2.118
0.0	1.904	1.919
5.0	1.724	1.745
10.0	1.569	1.592
15.0	1.430	1.457
20.0	1.310	1.338
25.0	1.204	1.231
30.0	1.110	1.137
35.0	1.026	1.052
40.0	0.953	0.976
45.0	0.887	0.908
50.0	0.828	0.846
55.0	0.777	0.790
60.0	0.732	0.740
65.0	0.691	0.694
70.0	0.657	0.652
75.0	0.629	0.614
80.0	0.599	0.579
85.0	0.569	0.546
90.0	0.549	0.517
95.0	0.529	0.490
100.0	0.509	0.465
105.0	0.489	0.441
110.0	0.469	0.420

NUMBER OF DATA POINTS 27  
MEAN ABSOLUTE ERROR 2.9  
REFERENCES 17

NAME PENTYLCYCLOHEXANE

FORMULA C11 H22

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 12.52 681.52 325.99  
CALC. FROM CORRELATION 12.48 686.68 325.46

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-10.0	3.321	3.158
-5.0	2.951	2.824
0.0	2.632	2.535
5.0	2.354	2.284
10.0	2.114	2.066
15.0	1.904	1.875
20.0	1.718	1.708
25.0	1.555	1.560
30.0	1.413	1.429
35.0	1.290	1.313
40.0	1.188	1.210
45.0	1.100	1.118
50.0	1.023	1.035
55.0	0.955	0.961
60.0	0.895	0.894
65.0	0.841	0.833
70.0	0.788	0.778
75.0	0.748	0.728
80.0	0.708	0.683
85.0	0.668	0.642
90.0	0.628	0.604
95.0	0.600	0.569
100.0	0.569	0.537
105.0	0.539	0.508

NUMBER OF DATA POINTS 24  
MEAN ABSOLUTE ERROR 2.6  
REFERENCES 17

NAME           HEXYLCYCLOHEXANE

FORMULA        C12 H24

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CONSTANTS                   NE            B            TO(DEG.K)

FROM EXPERIMENTAL DATA    13.59     736.92    339.56  
CALC. FROM CORRELATION     13.48     742.50    338.22

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-10.0	4.488	4.228
-5.0	3.948	3.746
0.0	3.510	3.333
5.0	3.110	2.979
10.0	2.762	2.672
15.0	2.473	2.407
20.0	2.214	2.175
25.0	1.994	1.972
30.0	1.795	1.794
35.0	1.625	1.637
40.0	1.488	1.499
45.0	1.367	1.375
50.0	1.264	1.266
55.0	1.173	1.168
60.0	1.096	1.080
65.0	1.020	1.001
70.0	0.957	0.930
75.0	0.898	0.866
80.0	0.838	0.808
85.0	0.788	0.755
90.0	0.749	0.707
95.0	0.699	0.663
100.0	0.659	0.623
105.0	0.629	0.586
110.0	0.590	0.553

NUMBER OF DATA POINTS       25  
MEAN ABSOLUTE ERROR        3.1  
REFERENCES                    17

NAME           HEPTYLCYCLOHEXANE

FORMULA        C13 H26

CONSTANTS                   NE            B            TO(DEG.K)

FROM EXPERIMENTAL DATA    14.60     787.82    351.31  
CALC. FROM CORRELATION     14.48     795.38    349.96

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-10.0	5.922	5.619
-5.0	5.185	4.935
0.0	4.567	4.355
5.0	4.015	3.861
10.0	3.550	3.437
15.0	3.151	3.072
20.0	2.762	2.757
25.0	2.473	2.482
30.0	2.244	2.243
35.0	2.014	2.034
40.0	1.825	1.850
45.0	1.674	1.687
50.0	1.540	1.543
55.0	1.420	1.416
60.0	1.316	1.302
65.0	1.222	1.200
70.0	1.137	1.109
75.0	1.057	1.027
80.0	0.987	0.954
85.0	0.928	0.887
90.0	0.868	0.827
95.0	0.818	0.772
100.0	0.769	0.722
105.0	0.720	0.677
110.0	0.680	0.635

NUMBER OF DATA POINTS       25  
MEAN ABSOLUTE ERROR        2.9  
REFERENCES                    17

NAME OCTYL CYCLOHEXANE

FORMULA C14 H28

A 40

CONSTANTS NE B TO( DEG.K)

FROM EXPERIMENTAL DATA 15.54 840.25 361.42  
CALC. FROM CORRELATION 15.48 845.30 360.80

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-10.0	7.700	7.400
-5.0	6.700	6.447
0.0	5.872	5.645
5.0	5.105	4.966
10.0	4.498	4.389
15.0	3.978	3.895
20.0	3.500	3.472
25.0	3.100	3.106
30.0	2.762	2.789
35.0	2.464	2.513
40.0	2.233	2.272
45.0	2.024	2.060
50.0	1.855	1.874
55.0	1.700	1.710
60.0	1.567	1.564
65.0	1.445	1.435
70.0	1.335	1.319
75.0	1.246	1.216
80.0	1.157	1.124
85.0	1.077	1.040
90.0	0.997	0.965
95.0	0.937	0.898
100.0	0.878	0.836
105.0	0.818	0.781
110.0	0.768	0.730

NUMBER OF DATA POINTS 25  
MEAN ABSOLUTE ERROR 2.4  
REFERENCES 17

NAME NONYL CYCLOHEXANE

FORMULA C15 H30

CONSTANTS NE B TO( DEG.K)

FROM EXPERIMENTAL DATA 16.45 886.88 370.56  
CALC. FROM CORRELATION 16.48 892.23 370.85

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-10.0	9.890	9.650
-5.0	8.550	8.343
0.0	7.420	7.251
5.0	6.450	6.334
10.0	5.620	5.560
15.0	4.920	4.902
20.0	4.320	4.341
25.0	3.800	3.859
30.0	3.370	3.445
35.0	2.990	3.086
40.0	2.680	2.775
45.0	2.430	2.503
50.0	2.200	2.265
55.0	2.010	2.056
60.0	1.850	1.871
65.0	1.700	1.708
70.0	1.570	1.564
75.0	1.440	1.435
80.0	1.340	1.320
85.0	1.240	1.217
90.0	1.150	1.124
95.0	1.070	1.041
100.0	1.000	0.966
105.0	0.930	0.898
110.0	0.870	0.837

NUMBER OF DATA POINTS 25  
MEAN ABSOLUTE ERROR 2.0  
REFERENCES 17



NAME DECYLCYCLOHEXANE

FORMULA C16 H31

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	17.31	925.84	378.69
CALC. FROM CORRELATION	17.48	936.16	380.24

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	9.260	9.229
5.0	8.000	8.008
10.0	6.930	6.984
15.0	6.030	6.120
20.0	5.260	5.387
25.0	4.600	4.762
30.0	4.050	4.227
35.0	3.570	3.766
40.0	3.190	3.368
45.0	2.870	3.023
50.0	2.590	2.722
55.0	2.360	2.459
60.0	2.160	2.228
65.0	1.970	2.025
70.0	1.810	1.845
75.0	1.660	1.686
80.0	1.530	1.545
85.0	1.420	1.418
90.0	1.310	1.306
95.0	1.210	1.204
100.0	1.120	1.114
105.0	1.040	1.032
110.0	0.970	0.958

NUMBER OF DATA POINTS	23
MEAN ABSOLUTE ERROR	2.3
REFERENCES	17

NAME UNDECYLCYCLOHEXANE

FORMULA C17 H34

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	18.16	957.97	386.32
CALC. FROM CORRELATION	18.23	967.11	386.93

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
10.0	8.440	8.241
15.0	7.310	7.190
20.0	6.340	6.302
25.0	5.500	5.548
30.0	4.810	4.905
35.0	4.230	4.354
40.0	3.760	3.880
45.0	3.360	3.470
50.0	3.030	3.113
55.0	2.740	2.803
60.0	2.490	2.532
65.0	2.270	2.293
70.0	2.080	2.084
75.0	1.900	1.898
80.0	1.740	1.734
85.0	1.600	1.588
90.0	1.470	1.458
95.0	1.360	1.341
100.0	1.260	1.237
105.0	1.160	1.143
110.0	1.080	1.058

NUMBER OF DATA POINTS	21
MEAN ABSOLUTE ERROR	1.6
REFERENCES	17

NAME DODECYLCYCLOHEXANE  
 FORMULA C18 H36  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 18.93 992.43 392.95  
 CALC. FROM CORRELATION 18.92 994.08 392.87

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
15.0	8.760	8.307
20.0	7.540	7.254
25.0	6.530	6.364
30.0	5.680	5.607
35.0	4.960	4.961
40.0	4.380	4.406
45.0	3.910	3.928
50.0	3.500	3.514
55.0	3.160	3.155
60.0	2.860	2.841
65.0	2.600	2.567
70.0	2.360	2.326
75.0	2.150	2.113
80.0	1.960	1.925
85.0	1.800	1.759
90.0	1.650	1.611
95.0	1.520	1.478
100.0	1.400	1.360
105.0	1.290	1.254
110.0	1.190	1.159

NUMBER OF DATA POINTS 20  
 MEAN ABSOLUTE ERROR 1.8  
 REFERENCES 17

NAME TRIDECYLCYCLOHEXANE  
 FORMULA C19 H38  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 19.68 1023.62 399.21  
 CALC. FROM CORRELATION 19.61 1019.59 398.64

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	8.920	8.322
25.0	7.670	7.276
30.0	6.640	6.390
35.0	5.780	5.636
40.0	5.080	4.990
45.0	4.510	4.436
50.0	4.020	3.957
55.0	3.610	3.542
60.0	3.260	3.182
65.0	2.940	2.867
70.0	2.670	2.591
75.0	2.420	2.349
80.0	2.210	2.135
85.0	2.020	1.946
90.0	1.840	1.778
95.0	1.690	1.628
100.0	1.550	1.495
105.0	1.420	1.376
110.0	1.310	1.269

NUMBER OF DATA POINTS 19  
 MEAN ABSOLUTE ERROR 3.1  
 REFERENCES 17

NAME TETRADECYLCYCLOHEXANE

A 43

FORMULA C20 H40

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 20.36 1054.46 404.78  
CALC. FROM CORRELATION 20.30 1045.00 404.29

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	8.960	8.319
30.0	7.710	7.282
35.0	6.680	6.402
40.0	5.850	5.652
45.0	5.170	5.009
50.0	4.590	4.456
55.0	4.100	3.978
60.0	3.690	3.563
65.0	3.320	3.202
70.0	3.000	2.887
75.0	2.710	2.610
80.0	2.460	2.367
85.0	2.240	2.152
90.0	2.040	1.962
95.0	1.860	1.793
100.0	1.700	1.643
105.0	1.560	1.509
110.0	1.440	1.388

NUMBER OF DATA POINTS 18  
MEAN ABSOLUTE ERROR 3.8  
REFERENCES 17

NAME PENTADECYLCYCLOHEXANE

FORMULA C21 H42

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 21.01 1082.54 410.09  
CALC. FROM CORRELATION 20.99 1071.76 409.92

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	8.910	8.332
35.0	7.670	7.301
40.0	6.690	6.425
45.0	5.880	5.676
50.0	5.210	5.035
55.0	4.640	4.482
60.0	4.150	4.003
65.0	3.720	3.588
70.0	3.360	3.226
75.0	3.020	2.909
80.0	2.740	2.632
85.0	2.480	2.387
90.0	2.250	2.171
95.0	2.050	1.980
100.0	1.870	1.810
105.0	1.710	1.658
110.0	1.570	1.523

NUMBER OF DATA POINTS 17  
MEAN ABSOLUTE ERROR 3.8  
REFERENCES 17

NAME           HEXADECYLCYCLOHEXANE  
 FORMULA       C22 H44

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	21.60	1111.59	414.90
CALC. FROM CORRELATION	21.67	1098.13	415.47

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
35.0	8.760	8.326
40.0	7.610	7.303
45.0	6.660	6.433
50.0	5.880	5.689
55.0	5.210	5.049
60.0	4.660	4.498
65.0	4.150	4.021
70.0	3.740	3.606
75.0	3.350	3.243
80.0	3.030	2.927
85.0	2.740	2.648
90.0	2.480	2.403
95.0	2.250	2.186
100.0	2.040	1.994
105.0	1.860	1.823
110.0	1.700	1.671

NUMBER OF DATA POINTS	16
MEAN ABSOLUTE ERROR	3.2
REFERENCES	17

NAME           CYCLOPENTANE  
 FORMULA       C5 H10

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.00	406.69	231.67
CALC. FROM CORRELATION	5.55	321.16	198.47

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-25.0	0.780	0.474
-20.0	0.720	0.447
-15.0	0.670	0.423
-10.0	0.629	0.400
-5.0	0.589	0.380
0.0	0.553	0.361
5.0	0.520	0.344
10.0	0.491	0.328
15.0	0.463	0.314
20.0	0.438	0.300
25.0	0.415	0.288
30.0	0.393	0.276
35.0	0.373	0.265
40.0	0.355	0.255
45.0	0.338	0.246

NUMBER OF DATA POINTS	15
MEAN ABSOLUTE ERROR	33.1
REFERENCES	17

NAME METHYLCYCLOPENTANE

A 45

FORMULA C6 H12

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.55	440.52	243.24
CALC. FROM CORRELATION	6.62	377.50	223.36

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-25.0	0.930	0.678
-20.0	0.860	0.632
-15.0	0.800	0.592
-10.0	0.743	0.555
-5.0	0.693	0.522
0.0	0.648	0.492
5.0	0.607	0.465
10.0	0.570	0.440
15.0	0.536	0.417
20.0	0.505	0.396
25.0	0.477	0.377
30.0	0.451	0.359
35.0	0.426	0.343
40.0	0.404	0.328
45.0	0.383	0.314
50.0	0.364	0.301
55.0	0.346	0.289
60.0	0.329	0.277
65.0	0.314	0.267
70.0	0.299	0.257

NUMBER OF DATA POINTS	20
MEAN ABSOLUTE ERROR	21.0
REFERENCES	17

NAME ETHYLCYCLOPENTANE

FORMULA C7 H14

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.87	433.81	249.72
CALC. FROM CORRELATION	7.69	430.66	246.09

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-20.0	0.960	0.894
-15.0	0.890	0.828
-10.0	0.827	0.770
-5.0	0.772	0.718
0.0	0.722	0.671
5.0	0.677	0.628
10.0	0.637	0.590
15.0	0.599	0.555
20.0	0.565	0.524
25.0	0.534	0.495
30.0	0.505	0.468
35.0	0.479	0.444
40.0	0.455	0.422
45.0	0.432	0.401
50.0	0.411	0.383
55.0	0.392	0.365
60.0	0.375	0.349
65.0	0.358	0.334
70.0	0.342	0.320
75.0	0.328	0.307
80.0	0.320	0.295
85.0	0.300	0.283
90.0	0.290	0.273
95.0	0.280	0.263
100.0	0.270	0.254

NUMBER OF DATA POINTS	25
MEAN ABSOLUTE ERROR	6.9
REFERENCES	17

NAME PROPYLCYCLOPENTANE

FORMULA C8 H16

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA

8.62 454.23

264.22

CALC. FROM CORRELATION

8.76 480.60

266.82

TEMP.  
(DEG.C)VISCOSITY  
(CP)

EXP.

CALC.

-20.0	1.240	1.251
-15.0	1.140	1.149
-10.0	1.046	1.059
-5.0	0.960	0.980
0.0	0.895	0.908
5.0	0.832	0.844
10.0	0.777	0.787
15.0	0.725	0.736
20.0	0.680	0.689
25.0	0.639	0.647
30.0	0.602	0.608
35.0	0.569	0.573
40.0	0.538	0.541
45.0	0.511	0.512
50.0	0.487	0.485
55.0	0.464	0.461
60.0	0.443	0.438
65.0	0.423	0.417
70.0	0.406	0.397
75.0	0.389	0.380
80.0	0.380	0.363
85.0	0.360	0.347
90.0	0.350	0.333
95.0	0.340	0.319
100.0	0.330	0.307
105.0	0.310	0.295
110.0	0.300	0.284

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES27  
2.2  
17

NAME BUTYLCYCLOPENTANE

FORMULA C9 H18

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	9.74	513.25	284.18
CALC. FROM CORRELATION	9.83	527.30	285.70

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-20.0	1.710	1.727
-15.0	1.560	1.574
-10.0	1.430	1.439
-5.0	1.306	1.320
0.0	1.204	1.215
5.0	1.108	1.122
10.0	1.027	1.039
15.0	0.953	0.964
20.0	0.887	0.898
25.0	0.828	0.837
30.0	0.775	0.783
35.0	0.726	0.734
40.0	0.682	0.689
45.0	0.642	0.648
50.0	0.606	0.611
55.0	0.573	0.577
60.0	0.544	0.546
65.0	0.516	0.517
70.0	0.493	0.491
75.0	0.470	0.467
80.0	0.450	0.444
85.0	0.430	0.423
90.0	0.410	0.404
95.0	0.400	0.386
100.0	0.380	0.369
105.0	0.370	0.354
110.0	0.350	0.339

NUMBER OF DATA POINTS	27
MEAN ABSOLUTE ERROR	1.3
REFERENCES	17

NAME PENTYLCYCLOPENTANE

FORMULA C10 H20

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	10.85	565.40	302.11
CALC. FROM CORRELATION	10.89	570.33	302.72

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-20.0	2.320	2.338
-15.0	2.120	2.115
-10.0	1.940	1.920
-5.0	1.780	1.749
0.0	1.630	1.599
5.0	1.490	1.467
10.0	1.369	1.349
15.0	1.253	1.245
20.0	1.152	1.152
25.0	1.062	1.069
30.0	0.981	0.994
35.0	0.912	0.926
40.0	0.853	0.865
45.0	0.800	0.810
50.0	0.751	0.760
55.0	0.706	0.714
60.0	0.665	0.673
65.0	0.629	0.635
70.0	0.596	0.600
75.0	0.567	0.568
80.0	0.540	0.538
85.0	0.520	0.511
90.0	0.500	0.486
95.0	0.470	0.463
100.0	0.450	0.441
105.0	0.440	0.421
110.0	0.420	0.402

NUMBER OF DATA POINTS	27
MEAN ABSOLUTE ERROR	1.4
REFERENCES	17



NAME	HEXYLCYCLOPENTANE		
FORMULA	C11 H22		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	11.98	617.57	318.65
CALC. FROM CORRELATION	11.96	610.49	318.37
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-20.0	3.120	3.118	
-15.0	2.840	2.800	
-10.0	2.790	2.525	
-5.0	2.360	2.286	
0.0	2.150	2.077	
5.0	1.956	1.893	
10.0	1.788	1.731	
15.0	1.627	1.589	
20.0	1.489	1.462	
25.0	1.363	1.349	
30.0	1.252	1.248	
35.0	1.158	1.157	
40.0	1.078	1.076	
45.0	1.002	1.003	
50.0	0.935	0.937	
55.0	0.873	0.877	
60.0	0.820	0.822	
65.0	0.770	0.772	
70.0	0.727	0.727	
75.0	0.688	0.685	
80.0	0.650	0.647	
85.0	0.620	0.612	
90.0	0.590	0.580	
95.0	0.560	0.550	
100.0	0.540	0.523	
105.0	0.510	0.498	
110.0	0.490	0.474	
NUMBER OF DATA POINTS		27	
MEAN ABSOLUTE ERROR		1.7	
REFERENCES		17	

NAME	HEPTYLCYCLOPENTANE		
FORMULA	C12 H24		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.07	654.77	333.12
CALC. FROM CORRELATION	13.03	647.32	332.61
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-20.0	4.110	4.081	
-15.0	3.730	3.641	
-10.0	3.380	3.263	
-5.0	3.070	2.936	
0.0	2.780	2.652	
5.0	2.530	2.404	
10.0	2.300	2.187	
15.0	2.080	1.996	
20.0	1.890	1.828	
25.0	1.722	1.678	
30.0	1.572	1.546	
35.0	1.445	1.427	
40.0	1.338	1.321	
45.0	1.237	1.226	
50.0	1.148	1.140	
55.0	1.066	1.063	
60.0	0.994	0.993	
65.0	0.929	0.929	
70.0	0.873	0.871	
75.0	0.823	0.819	
80.0	0.780	0.770	
85.0	0.740	0.726	
90.0	0.700	0.686	
95.0	0.660	0.649	
100.0	0.630	0.615	
105.0	0.600	0.583	
110.0	0.570	0.554	
NUMBER OF DATA POINTS	27		
MEAN ABSOLUTE ERROR	2.1		
REFERENCES	17		

NAME	OCTYL CYCLOPENTANE		
FORMULA	C13 H26		
CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	14.15	695.83	346.19
CALC. FROM CORRELATION	14.10	681.94	345.62
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-20.0	5.340	5.255	
-15.0	4.820	4.660	
-10.0	4.350	4.152	
-5.0	3.930	3.715	
0.0	3.550	3.337	
5.0	3.210	3.009	
10.0	2.900	2.724	
15.0	2.620	2.474	
20.0	2.370	2.254	
25.0	2.150	2.061	
30.0	1.950	1.889	
35.0	1.777	1.737	
40.0	1.637	1.601	
45.0	1.506	1.480	
50.0	1.389	1.371	
55.0	1.283	1.273	
60.0	1.190	1.185	
65.0	1.108	1.105	
70.0	1.037	1.033	
75.0	0.971	0.967	
80.0	0.920	0.908	
85.0	0.860	0.853	
90.0	0.820	0.803	
95.0	0.770	0.757	
100.0	0.730	0.715	
105.0	0.690	0.676	
110.0	0.660	0.641	
NUMBER OF DATA POINTS	27		
MEAN ABSOLUTE ERROR	2.7		
REFERENCES	17		

NAME	NONYL CYCLOPENTANE		
FORMULA	C14 H28		
CONSTANTS	NE	B	T0( DEG.K)
FROM EXPERIMENTAL DATA	15.19	735.19	357.74
CALC. FROM CORRELATION	15.17	734.41	357.53
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-20.0	6.830	7.028	
-15.0	6.150	6.175	
-10.0	5.530	5.452	
-5.0	4.970	4.837	
0.0	4.460	4.309	
5.0	4.010	3.856	
10.0	3.610	3.463	
15.0	3.240	3.122	
20.0	2.920	2.825	
25.0	2.630	2.564	
30.0	2.380	2.335	
35.0	2.170	2.133	
40.0	1.980	1.954	
45.0	1.810	1.795	
50.0	1.660	1.654	
55.0	1.525	1.527	
60.0	1.409	1.413	
65.0	1.306	1.311	
70.0	1.216	1.219	
75.0	1.136	1.136	
80.0	1.070	1.060	
85.0	1.000	0.992	
90.0	0.940	0.929	
95.0	0.890	0.872	
100.0	0.840	0.820	
105.0	0.790	0.773	
110.0	0.750	0.729	
NUMBER OF DATA POINTS		27	
MEAN ABSOLUTE ERROR		1.8	
REFERENCES		17	

NAME DECYLCYCLOPENTANE

FORMULA C15 H30

A 53

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 16.22 771.74 368.30  
CALC. FROM CORRELATION 16.24 783.47 368.50

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-20.0	8.630	9.303
-15.0	7.730	8.104
-10.0	6.920	7.097
-5.0	6.190	6.245
0.0	5.540	5.522
5.0	4.960	4.903
10.0	4.450	4.373
15.0	3.970	3.915
20.0	3.560	3.519
25.0	3.200	3.174
30.0	2.870	2.872
35.0	2.570	2.608
40.0	2.370	2.375
45.0	2.160	2.170
50.0	1.970	1.987
55.0	1.800	1.825
60.0	1.651	1.681
65.0	1.526	1.551
70.0	1.414	1.435
75.0	1.315	1.331
80.0	1.230	1.237
85.0	1.150	1.152
90.0	1.080	1.075
95.0	1.020	1.005
100.0	0.960	0.941
105.0	0.900	0.882
110.0	0.850	0.829

NUMBER OF DATA POINTS 27  
MEAN ABSOLUTE ERROR 1.6  
REFERENCES 17

NAME UNDECYLCYCLOPENTANE

FORMULA C16 H32

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 17.14 817.49 377.11  
CALC. FROM CORRELATION 17.22 825.38 377.86

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-10.0	8.560	8.955
-5.0	7.630	7.826
0.0	6.800	6.874
5.0	6.060	6.066
10.0	5.410	5.377
15.0	4.810	4.786
20.0	4.290	4.276
25.0	3.840	3.836
30.0	3.430	3.453
35.0	3.090	3.119
40.0	2.810	2.827
45.0	2.540	2.570
50.0	2.310	2.343
55.0	2.100	2.142
60.0	1.920	1.964
65.0	1.765	1.805
70.0	1.630	1.663
75.0	1.511	1.536
80.0	1.410	1.422
85.0	1.320	1.319
90.0	1.230	1.226
95.0	1.150	1.142
100.0	1.080	1.065
105.0	1.010	0.996
110.0	0.950	0.933

NUMBER OF DATA POINTS 25  
MEAN ABSOLUTE ERROR 1.3  
REFERENCES 17

NAME DODECYLCYCLOPENTANE

A 1

FORMULA C17 H34

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	18.07	853.90	385.53
CALC. FROM CORRELATION	18.05	858.62	385.35

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-5.0	9.310	9.413
0.0	8.260	8.225
5.0	7.340	7.221
10.0	6.520	6.370
15.0	5.770	5.643
20.0	5.120	5.020
25.0	4.560	4.483
30.0	4.060	4.019
35.0	3.640	3.615
40.0	3.290	3.263
45.0	2.960	2.955
50.0	2.690	2.684
55.0	2.440	2.445
60.0	2.220	2.234
65.0	2.030	2.046
70.0	1.870	1.879
75.0	1.730	1.730
80.0	1.600	1.596
85.0	1.490	1.476
90.0	1.390	1.368
95.0	1.300	1.271
100.0	1.220	1.182
105.0	1.140	1.102
110.0	1.070	1.030

NUMBER OF DATA POINTS 24  
MEAN ABSOLUTE ERROR 1.3  
REFERENCES 17

NAME TRIDECYLCYCLOPENTANE

FORMULA C18 H36

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	18.91	891.80	392.78
CALC. FROM CORRELATION	18.87	889.39	392.44

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
5.0	8.800	8.533
10.0	7.780	7.493
15.0	6.860	6.609
20.0	6.060	5.855
25.0	5.380	5.208
30.0	4.770	4.650
35.0	4.260	4.167
40.0	3.830	3.748
45.0	3.440	3.382
50.0	3.100	3.061
55.0	2.800	2.779
60.0	2.540	2.531
65.0	2.320	2.311
70.0	2.130	2.116
75.0	1.960	1.942
80.0	1.810	1.787
85.0	1.680	1.648
90.0	1.560	1.523
95.0	1.450	1.411
100.0	1.360	1.310
105.0	1.270	1.218
110.0	1.180	1.135

NUMBER OF DATA POINTS 22  
MEAN ABSOLUTE ERROR 2.3  
REFERENCES 17

NAME TETRADECYLCYCLOPENTANE

FORMULA C19 H38

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	19.73	924.60	399.62
CALC. FROM CORRELATION	19.70	918.44	399.38

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
10.0	9.210	8.787
15.0	8.090	7.719
20.0	7.130	6.811
25.0	6.290	6.035
30.0	5.560	5.369
35.0	4.940	4.794
40.0	4.430	4.297
45.0	3.960	3.864
50.0	3.550	3.486
55.0	3.190	3.156
60.0	2.890	2.865
65.0	2.630	2.608
70.0	2.400	2.381
75.0	2.200	2.179
80.0	2.030	2.000
85.0	1.880	1.839
90.0	1.740	1.696
95.0	1.620	1.567
100.0	1.510	1.451
105.0	1.400	1.346
110.0	1.310	1.251

NUMBER OF DATA POINTS	21
MEAN ABSOLUTE ERROR	2.7
REFERENCES	17

NAME PENTADECYLCYCLOPENTANE

FORMULA C20 H40

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	20.55	950.57	406.33
CALC. FROM CORRELATION	20.53	947.97	406.17

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	8.320	7.938
25.0	7.310	7.006
30.0	6.440	6.209
35.0	5.700	5.524
40.0	5.080	4.934
45.0	4.520	4.422
50.0	4.050	3.977
55.0	3.620	3.588
60.0	3.270	3.247
65.0	2.960	2.947
70.0	2.700	2.682
75.0	2.470	2.448
80.0	2.270	2.240
85.0	2.100	2.055
90.0	1.940	1.890
95.0	1.800	1.742
100.0	1.670	1.609
105.0	1.550	1.489
110.0	1.440	1.381

NUMBER OF DATA POINTS	19
MEAN ABSOLUTE ERROR	2.5
REFERENCES	17

NAME           HEXADECYL CYCLOPENTANE

FORMULA        C21 H42

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	21.28	977.42	412.29
CALC. FROM CORRELATION	21.36	978.57	412.94

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TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	8.440	8.171
30.0	7.400	7.214
35.0	6.520	6.394
40.0	5.800	5.690
45.0	5.140	5.081
50.0	4.570	4.554
55.0	4.090	4.095
60.0	3.670	3.694
65.0	3.320	3.342
70.0	3.020	3.033
75.0	2.750	2.760
80.0	2.520	2.519
85.0	2.320	2.304
90.0	2.140	2.113
95.0	1.980	1.942
100.0	1.840	1.789
105.0	1.700	1.652
110.0	1.580	1.528

NUMBER OF DATA POINTS	18
MEAN ABSOLUTE ERROR	1.5
REFERENCES	17

NAME           BENZENE

FORMULA        C6 H6

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	8.68	545.64	265.34
CALC. FROM CORRELATION	6.60	359.26	222.91

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
10.0	0.758	0.454
20.0	0.647	0.411
30.0	0.559	0.374
40.0	0.488	0.343
50.0	0.432	0.316
60.0	0.385	0.293
70.0	0.346	0.272
0.0	0.912	0.505
10.0	0.758	0.454
20.0	0.652	0.411
30.0	0.564	0.374
40.0	0.503	0.343
50.0	0.442	0.316
60.0	0.392	0.293
70.0	0.358	0.272
10.0	0.758	0.454
15.0	0.700	0.432
20.0	0.647	0.411
25.0	0.601	0.392
30.0	0.560	0.374
35.0	0.524	0.358
40.0	0.491	0.343
45.0	0.461	0.329
50.0	0.435	0.316
55.0	0.411	0.304
60.0	0.389	0.293
65.0	0.368	0.282
70.0	0.350	0.272
75.0	0.332	0.263

NUMBER OF DATA POINTS	29
MEAN ABSOLUTE ERROR	30.8
REFERENCES	18, 19, 20



NAME METHYLBENZENE (TOLUENE)

FORMULA C7 H8

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 8.15 467.33 255.24  
CALC. FROM CORRELATION 7.60 420.74 244.26

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.771	0.657
10.0	0.668	0.580
20.0	0.588	0.516
30.0	0.522	0.463
40.0	0.468	0.418
50.0	0.423	0.380
60.0	0.383	0.347
70.0	0.349	0.319
80.0	0.320	0.294
90.0	0.294	0.273
100.0	0.272	0.254
0.0	0.772	0.657
17.0	0.610	0.534
20.0	0.590	0.516
30.0	0.526	0.463
40.0	0.471	0.418
70.0	0.354	0.319
-25.0	1.170	0.940
-20.0	1.070	0.870
-15.0	0.977	0.808
-10.0	0.901	0.752
-5.0	0.832	0.702
0.0	0.771	0.657
5.0	0.716	0.617
10.0	0.668	0.580
15.0	0.624	0.547
20.0	0.587	0.516
25.0	0.550	0.488
30.0	0.519	0.463
35.0	0.490	0.439
40.0	0.464	0.418
45.0	0.440	0.398
50.0	0.418	0.380
55.0	0.398	0.363
60.0	0.379	0.347
65.0	0.361	0.332
70.0	0.345	0.319
75.0	0.330	0.306
80.0	0.316	0.294
85.0	0.303	0.283
90.0	0.290	0.273
95.0	0.279	0.263
100.0	0.268	0.254
105.0	0.258	0.246

NUMBER OF DATA POINTS 44  
MEAN ABSOLUTE ERROR 10.8

REFERENCES 17, 19, 20

NAME ETHYLBENZENE

FORMULA C8 H10

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 8.62 472.82 264.22

CALC. FROM CORRELATION 8.60 479.41 263.85

TEMP.  
(DEG.C)VISCOSITY  
(CP)

TEMP. (DEG.C)	EXP.	CALC.
0.4	0.869	0.862
11.4	0.744	0.737
21.7	0.654	0.644
32.9	0.572	0.562
47.1	0.491	0.479
60.5	0.430	0.417
73.8	0.381	0.367
83.6	0.349	0.336
95.6	0.316	0.304
108.0	0.287	0.276
119.2	0.263	0.254
17.0	0.691	0.684
-25.0	1.350	1.303
-20.0	1.240	1.193
-15.0	1.130	1.097
-10.0	1.042	1.011
-5.0	0.962	0.935
0.0	0.892	0.867
5.0	0.829	0.806
10.0	0.773	0.752
15.0	0.722	0.703
20.0	0.677	0.658
25.0	0.636	0.618
30.0	0.599	0.581
35.0	0.565	0.548
40.0	0.534	0.517
45.0	0.506	0.490
50.0	0.480	0.464
55.0	0.457	0.440
60.0	0.435	0.419
65.0	0.415	0.399
70.0	0.396	0.380
75.0	0.379	0.363
80.0	0.363	0.347
85.0	0.347	0.332
90.0	0.333	0.318
95.0	0.320	0.306
100.0	0.307	0.294
105.0	0.295	0.282
110.0	0.285	0.272
115.0	0.274	0.262
120.0	0.264	0.253
125.0	0.255	0.244
130.0	0.246	0.236

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR44  
3.3

REFERENCES

17, 18, 20

NAME            PROPYL BENZENE

FORMULA        C9 H12

CONSTANTS                            NE            B            TO( DEG.K)

FROM EXPERIMENTAL DATA            9.65        527.45        282.65

CALC. FROM CORRELATION            9.60        535.25        281.79

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-25.0	1.910	1.809
-20.0	1.720	1.640
-15.0	1.549	1.492
-10.0	1.412	1.363
-5.0	1.287	1.249
0.0	1.179	1.148
5.0	1.082	1.059
10.0	0.997	0.979
15.0	0.921	0.908
20.0	0.854	0.844
25.0	0.797	0.787
30.0	0.745	0.735
35.0	0.698	0.688
40.0	0.655	0.645
45.0	0.617	0.607
50.0	0.583	0.571
55.0	0.551	0.539
60.0	0.522	0.509
65.0	0.497	0.482
70.0	0.472	0.457
75.0	0.450	0.434
80.0	0.429	0.413
85.0	0.409	0.394
90.0	0.391	0.375
95.0	0.374	0.358
100.0	0.359	0.343
105.0	0.344	0.328
110.0	0.330	0.314
115.0	0.317	0.302
120.0	0.305	0.290
125.0	0.294	0.279
130.0	0.283	0.268
135.0	0.270	0.258
140.0	0.260	0.249
145.0	0.260	0.240
150.0	0.250	0.232

NUMBER OF DATA POINTS	36
MEAN ABSOLUTE ERROR	3.5
REFERENCES	17

NAME BUTYLBENZENE  
 FORMULA C10 H14  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 10.46 563.84 296.01  
 CALC. FROM CORRELATION 10.60 588.24 298.22

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-25.0	2.500	2.500
-20.0	2.230	2.244
-15.0	1.981	2.024
-10.0	1.785	1.832
-5.0	1.629	1.664
0.0	1.462	1.517
5.0	1.330	1.388
10.0	1.216	1.273
15.0	1.119	1.172
20.0	1.032	1.082
25.0	0.957	1.001
30.0	0.891	0.929
35.0	0.833	0.864
40.0	0.779	0.805
45.0	0.731	0.752
50.0	0.682	0.704
55.0	0.648	0.661
60.0	0.612	0.621
65.0	0.579	0.585
70.0	0.548	0.552
75.0	0.520	0.521
80.0	0.496	0.493
85.0	0.471	0.468
90.0	0.449	0.444
95.0	0.429	0.422
100.0	0.410	0.402
105.0	0.390	0.383
110.0	0.380	0.365
115.0	0.360	0.349
120.0	0.350	0.334
125.0	0.330	0.320
130.0	0.320	0.307
135.0	0.310	0.294
140.0	0.300	0.283
145.0	0.290	0.272
150.0	0.280	0.262

NUMBER OF DATA POINTS 36  
 MEAN ABSOLUTE ERROR 3.0  
 REFERENCES 17

NAME PENTYLBENZENE

FORMULA C11 H16

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	11.67	635.80	314.27
CALC. FROM CORRELATION	11.60	638.35	313.27

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-20.0	3.820	3.047
-15.0	3.130	2.723
-10.0	2.640	2.443
-5.0	2.280	2.202
0.0	2.010	1.992
5.0	1.790	1.808
10.0	1.603	1.647
15.0	1.456	1.505
20.0	1.330	1.380
25.0	1.222	1.268
30.0	1.129	1.169
35.0	1.046	1.081
40.0	0.973	1.002
45.0	0.909	0.930
50.0	0.851	0.866
55.0	0.799	0.808
60.0	0.754	0.756
65.0	0.709	0.708
70.0	0.672	0.664
75.0	0.634	0.625
80.0	0.600	0.589
85.0	0.570	0.555
90.0	0.542	0.525
95.0	0.515	0.497
100.0	0.491	0.471
105.0	0.470	0.447
110.0	0.450	0.425
115.0	0.430	0.404
120.0	0.410	0.385
125.0	0.390	0.368
130.0	0.370	0.351
135.0	0.360	0.336
140.0	0.340	0.322
145.0	0.330	0.308
150.0	0.320	0.296

NUMBER OF DATA POINTS	35
MEAN ABSOLUTE ERROR	4.4
REFERENCES	17

NAME           HEXYLBENZENE  
 FORMULA       C12 H18  
 CONSTANTS                   NE           B           TO(DEG.K)  
 FROM EXPERIMENTAL DATA   12.67    683.93   327.97  
 CALC. FROM CORRELATION   12.60    685.57   327.05

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-20.0	5.170	4.091
-15.0	4.180	3.625
-10.0	3.660	3.228
-5.0	2.990	2.886
0.0	2.600	2.591
5.0	2.300	2.336
10.0	2.050	2.113
15.0	1.841	1.918
20.0	1.670	1.747
25.0	1.523	1.596
30.0	1.399	1.463
35.0	1.289	1.344
40.0	1.193	1.239
45.0	1.109	1.144
50.0	1.032	1.060
55.0	0.964	0.984
60.0	0.906	0.915
65.0	0.846	0.853
70.0	0.802	0.797
75.0	0.753	0.746
80.0	0.710	0.700
85.0	0.672	0.657
90.0	0.636	0.619
95.0	0.603	0.583
100.0	0.572	0.551
105.0	0.550	0.521
110.0	0.520	0.493
115.0	0.490	0.468
120.0	0.470	0.444
125.0	0.450	0.422
130.0	0.430	0.402
135.0	0.410	0.383
140.0	0.390	0.366
145.0	0.380	0.349
150.0	0.360	0.334

NUMBER OF DATA POINTS           35  
 MEAN ABSOLUTE ERROR            4.8  
 REFERENCES                        17

NAME HEPTYLBENZENE

FORMULA C13 H20

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.65	726.49	340.29
CALC. FROM CORRELATION	13.60	729.86	339.68

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-20.0	6.930	5.425
-15.0	5.530	4.770
-10.0	4.570	4.215
-5.0	3.870	3.742
0.0	3.340	3.336
5.0	2.920	2.987
10.0	2.590	2.685
15.0	2.310	2.422
20.0	2.080	2.193
25.0	1.882	1.992
30.0	1.717	1.815
35.0	1.574	1.659
40.0	1.447	1.521
45.0	1.338	1.398
50.0	1.239	1.288
55.0	1.154	1.190
60.0	1.078	1.102
65.0	1.005	1.023
70.0	0.946	0.951
75.0	0.884	0.887
80.0	0.832	0.828
85.0	0.784	0.775
90.0	0.740	0.726
95.0	0.699	0.682
100.0	0.662	0.642
105.0	0.630	0.604
110.0	0.600	0.570
115.0	0.570	0.539
120.0	0.540	0.510
125.0	0.510	0.484
130.0	0.490	0.459
135.0	0.470	0.436
140.0	0.450	0.415
145.0	0.430	0.395
150.0	0.400	0.377

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES

35  
4.9  
17

NAME	OCTYL BENZENE		
FORMULA	C14 H22		
CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	14.48	788.79	349.96
CALC. FROM CORRELATION	14.60	771.22	351.31
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-20.0	9.230	7.097	
-15.0	7.280	6.196	
-10.0	5.940	5.437	
-5.0	4.980	4.794	
0.0	4.250	4.247	
5.0	3.690	3.778	
10.0	3.240	3.376	
15.0	2.870	3.027	
20.0	2.570	2.725	
25.0	2.310	2.462	
30.0	2.090	2.232	
35.0	1.903	2.029	
40.0	1.738	1.851	
45.0	1.600	1.693	
50.0	1.474	1.553	
125.0	0.580	0.552	
55.0	1.365	1.428	
60.0	1.270	1.317	
65.0	1.180	1.217	
70.0	1.108	1.128	
75.0	1.030	1.047	
80.0	0.965	0.974	
85.0	0.907	0.908	
90.0	0.853	0.848	
95.0	0.804	0.793	
100.0	0.761	0.744	
105.0	0.720	0.698	
110.0	0.680	0.657	
115.0	0.640	0.619	
120.0	0.610	0.584	
NUMBER OF DATA POINTS			30
MEAN ABSOLUTE ERROR			4.8
REFERENCES			17



NAME NONYLBENZENE

FORMULA C15 H24

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	15.35	835.49	359.43
CALC. FROM CORRELATION	15.60	809.61	362.04

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-20.0	12.200	9.157
-15.0	9.500	7.940
-10.0	7.660	6.922
-5.0	6.350	6.066
0.0	5.360	5.341
5.0	4.610	4.724
10.0	4.020	4.197
15.0	3.530	3.744
20.0	3.140	3.353
25.0	2.800	3.014
30.0	2.530	2.718
35.0	2.290	2.460
40.0	2.080	2.234
45.0	1.900	2.034
50.0	1.740	1.858
55.0	1.603	1.702
60.0	1.486	1.563
65.0	1.374	1.439
70.0	1.285	1.328
75.0	1.190	1.228
80.0	1.111	1.138
85.0	1.041	1.057
90.0	0.975	0.984
95.0	0.917	0.918
100.0	0.863	0.858
105.0	0.820	0.803
110.0	0.770	0.753
115.0	0.730	0.707
120.0	0.690	0.665
125.0	0.650	0.627

NUMBER OF DATA POINTS	30
MEAN ABSOLUTE ERROR	5.4
REFERENCES	17

NAME	DECYLBENZENE		
FORMULA	C16 H26		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	16.41	844.13	370.17
CALC. FROM CORRELATION	16.48	840.92	370.85
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-15.0	12.270	9.768	
-10.0	9.780	8.470	
-5.0	8.020	7.385	
0.0	6.700	6.470	
5.0	5.700	5.696	
10.0	4.930	5.037	
15.0	4.300	4.474	
20.0	3.790	3.989	
25.0	3.360	3.571	
30.0	3.010	3.208	
35.0	2.710	2.893	
40.0	2.450	2.616	
45.0	2.220	2.374	
50.0	2.000	2.161	
55.0	1.870	1.972	
60.0	1.725	1.805	
65.0	1.588	1.656	
70.0	1.482	1.524	
75.0	1.367	1.405	
80.0	1.271	1.299	
85.0	1.187	1.203	
90.0	1.109	1.117	
95.0	1.038	1.039	
100.0	0.974	0.968	
105.0	0.920	0.904	
110.0	0.860	0.846	
115.0	0.810	0.792	
120.0	0.770	0.744	
125.0	0.730	0.699	
130.0	0.690	0.658	
135.0	0.650	0.620	
140.0	0.620	0.586	
145.0	0.590	0.554	
150.0	0.560	0.524	
NUMBER OF DATA POINTS	34		
MEAN ABSOLUTE ERROR	4.8		
REFERENCES	17		

NAME UNDECYLBENZENE

FORMULA C17 H28

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 17.30 872.17 378.59  
CALC. FROM CORRELATION 17.32 868.64 378.78

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-10.0	12.440	10.175
-5.0	10.080	8.831
0.0	8.330	7.704
5.0	7.040	6.754
10.0	6.020	5.948
15.0	5.210	5.262
20.0	4.570	4.675
25.0	4.020	4.169
30.0	3.580	3.733
35.0	3.200	3.354
40.0	2.880	3.024
45.0	2.610	2.735
50.0	2.370	2.481
55.0	2.160	2.258
60.0	1.989	2.061
65.0	1.825	1.886
70.0	1.696	1.730
75.0	1.559	1.591
80.0	1.445	1.467
85.0	1.344	1.355
90.0	1.251	1.255
95.0	1.169	1.164
100.0	1.095	1.083
105.0	1.030	1.009
110.0	0.970	0.941
115.0	0.910	0.880
120.0	0.860	0.824
125.0	0.810	0.773
130.0	0.760	0.727
135.0	0.720	0.684
140.0	0.680	0.644
145.0	0.650	0.608
150.0	0.610	0.575

NUMBER OF DATA POINTS	33
MEAN ABSOLUTE ERROR	4.2
REFERENCES	17

NAME	DODECYLBENZENE		
FORMULA	C18 H30		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	18.21	887.76	386.76
CALC. FROM CORRELATION	18.16	894.22	386.32
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
0.0	10.310	9.097	
5.0	8.610	7.944	
10.0	7.310	6.971	
15.0	6.280	6.144	
20.0	5.450	5.439	
25.0	4.780	4.835	
30.0	4.230	4.315	
35.0	3.760	3.864	
40.0	3.360	3.473	
45.0	3.030	3.132	
50.0	2.740	2.834	
55.0	2.490	2.572	
60.0	2.280	2.341	
65.0	2.080	2.136	
70.0	1.929	1.955	
75.0	1.767	1.793	
80.0	1.632	1.649	
85.0	1.513	1.520	
90.0	1.406	1.405	
95.0	1.309	1.301	
100.0	1.222	1.207	
105.0	1.150	1.122	
110.0	1.070	1.045	
115.0	1.010	0.975	
120.0	0.950	0.911	
125.0	0.890	0.853	
130.0	0.840	0.800	
135.0	0.790	0.752	
140.0	0.750	0.707	
145.0	0.710	0.666	
150.0	0.670	0.629	
NUMBER OF DATA POINTS		31	
MEAN ABSOLUTE ERROR		3.3	
REFERENCES		17	

NAME TRIDECYLBENZENE

FORMULA C19 H32

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	19.05	915.57	393.97
CALC. FROM CORRELATION	19.00	917.65	393.54

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
5.0	10.490	9.274
10.0	8.810	8.109
15.0	7.520	7.125
20.0	6.480	6.287
25.0	5.630	5.571
30.0	4.960	4.957
35.0	4.390	4.427
40.0	3.900	3.968
45.0	3.500	3.568
50.0	3.150	3.220
55.0	2.850	2.915
60.0	2.600	2.646
65.0	2.360	2.409
70.0	2.180	2.200
75.0	1.991	2.014
80.0	1.834	1.848
85.0	1.696	1.700
90.0	1.570	1.567
95.0	1.458	1.448
100.0	1.358	1.341
105.0	1.270	1.244
110.0	1.190	1.157
115.0	1.110	1.077
120.0	1.040	1.005
125.0	0.980	0.940
130.0	0.920	0.880
135.0	0.870	0.825
140.0	0.820	0.775
145.0	0.770	0.729
150.0	0.730	0.687

NUMBER OF DATA POINTS	30
MEAN ABSOLUTE ERROR	2.9
REFERENCES	17

NAME	TETRADECYL BENZENE		
FORMULA	C20 H34		
CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	19.90	932.51	401.02
CALC. FROM CORRELATION	19.84	938.92	400.53
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
15.0	8.940	8.206	
20.0	7.660	7.220	
25.0	6.610	6.380	
30.0	5.780	5.661	
35.0	5.080	5.043	
40.0	4.500	4.508	
45.0	4.020	4.045	
50.0	3.600	3.641	
55.0	3.240	3.288	
60.0	2.940	2.979	
65.0	2.670	2.706	
70.0	2.460	2.465	
75.0	2.280	2.252	
80.0	2.050	2.063	
85.0	1.891	1.894	
90.0	1.746	1.743	
95.0	1.617	1.607	
100.0	1.502	1.486	
105.0	1.400	1.376	
110.0	1.310	1.277	
115.0	1.220	1.188	
120.0	1.140	1.106	
125.0	1.070	1.033	
130.0	1.010	0.965	
135.0	0.950	0.904	
140.0	0.890	0.848	
145.0	0.840	0.796	
150.0	0.790	0.749	
NUMBER OF DATA POINTS			28
MEAN ABSOLUTE ERROR			2.4
REFERENCES			17

NAME PENTADECYL BENZENE

FORMULA C21 H36

A 71

CONSTANTS NE B TO( DEG.K)

FROM EXPERIMENTAL DATA 20.67 957.98 407.31
CALC. FROM CORRELATION 20.67 961.23 407.31

Table with columns: TEMP. (DEG.C), VISCOSITY (CP) EXP., VISCOSITY (CP) CALC. Rows range from 20.0 to 150.0 degrees Celsius.

NUMBER OF DATA POINTS 27
MEAN ABSOLUTE ERROR 2.1
REFERENCES 17

NAME HEXADECYL BENZENE

FORMULA C22 H38

CONSTANTS NE B TO( DEG.K)

FROM EXPERIMENTAL DATA 21.43 974.80 413.51
CALC. FROM CORRELATION 21.52 984.70 414.25

Table with columns: TEMP. (DEG.C), VISCOSITY (CP) EXP., VISCOSITY (CP) CALC. Rows range from 30.0 to 150.0 degrees Celsius.

NUMBER OF DATA POINTS 25
MEAN ABSOLUTE ERROR 1.6
REFERENCES 17

NAME	1,2-DIMETHYLBENZENE (O-XYLENE)		
FORMULA	C8 H10		
CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	9.38	513.54	277.98
CALC. FROM CORRELATION	9.11	563.08	273.20
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
0.0	1.105	1.001	
16.0	0.876	0.769	
20.0	0.810	0.724	
40.0	0.627	0.546	
-5.0	1.212	1.093	
0.0	1.105	1.001	
5.0	1.014	0.919	
10.0	0.936	0.846	
15.0	0.867	0.782	
20.0	0.806	0.724	
25.0	0.754	0.672	
30.0	0.706	0.626	
35.0	0.662	0.584	
40.0	0.623	0.546	
45.0	0.587	0.511	
50.0	0.555	0.480	
55.0	0.526	0.452	
60.0	0.499	0.426	
65.0	0.475	0.402	
70.0	0.452	0.380	
75.0	0.431	0.360	
80.0	0.411	0.341	
85.0	0.392	0.324	
90.0	0.375	0.309	
95.0	0.359	0.294	
100.0	0.344	0.280	
105.0	0.330	0.268	
110.0	0.317	0.256	
115.0	0.304	0.245	
120.0	0.293	0.235	
125.0	0.282	0.225	
130.0	0.271	0.217	
135.0	0.262	0.208	
140.0	0.253	0.200	
NUMBER OF DATA POINTS			34
MEAN ABSOLUTE ERROR			14.7
REFERENCES			17, 20



NAME 1,3-DIMETHYLBENZENE (M-XYLENE)

FORMULA C8 H10

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	8.25	453.42	257.18
CALC. FROM CORRELATION	8.71	512.94	265.90

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.806	0.889
15.0	0.650	0.710
20.0	0.620	0.662
40.0	0.497	0.512
0.0	0.806	0.889
5.0	0.750	0.822
10.0	0.700	0.763
15.0	0.655	0.710
20.0	0.615	0.662
25.0	0.579	0.618
30.0	0.547	0.579
35.0	0.517	0.544
40.0	0.491	0.512
45.0	0.467	0.482
50.0	0.444	0.455
55.0	0.423	0.431
60.0	0.404	0.408
65.0	0.386	0.387
70.0	0.369	0.368
75.0	0.354	0.350
80.0	0.339	0.334
85.0	0.325	0.318
90.0	0.313	0.304
95.0	0.300	0.291
100.0	0.289	0.279
105.0	0.278	0.268
110.0	0.268	0.257
115.0	0.258	0.247
120.0	0.249	0.237
125.0	0.241	0.229
130.0	0.232	0.220
135.0	0.225	0.213

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES

32  
4.7  
17, 20

NAME 1,4-DIMETHYL BENZENE (P-XYLENE)

A

FORMULA C8 H10

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	8.47	475.16	261.40
CALC. FROM CORRELATION	8.56	459.55	263.09

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
16.0	0.696	0.696
20.0	0.648	0.662
40.0	0.513	0.526
15.0	0.685	0.705
20.0	0.642	0.662
25.0	0.603	0.623
30.0	0.568	0.588
35.0	0.535	0.555
40.0	0.504	0.526
45.0	0.481	0.499
50.0	0.456	0.474
55.0	0.434	0.450
60.0	0.414	0.429
65.0	0.394	0.410
70.0	0.376	0.391
75.0	0.360	0.374
80.0	0.345	0.359
85.0	0.330	0.344
90.0	0.317	0.330
95.0	0.304	0.317
100.0	0.292	0.305
105.0	0.280	0.294
110.0	0.269	0.284
115.0	0.259	0.274
120.0	0.249	0.264
125.0	0.241	0.256
130.0	0.232	0.247
135.0	0.224	0.239

NUMBER OF DATA POINTS	28
MEAN ABSOLUTE ERROR	4.1
REFERENCES	17, 20

NAME 1-METHYL, 4-ETHYLBENZENE

FORMULA C9 H12

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	8.72	463.17	266.08
CALC. FROM CORRELATION	9.56	515.50	281.10

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
10.0	0.805	0.970
15.0	0.751	0.902
20.0	0.703	0.841
25.0	0.660	0.785
30.0	0.621	0.735
35.0	0.586	0.690
40.0	0.554	0.649
45.0	0.525	0.612
50.0	0.499	0.577
55.0	0.475	0.546
60.0	0.453	0.517
65.0	0.433	0.490
70.0	0.414	0.466
75.0	0.397	0.443
80.0	0.381	0.423

NUMBER OF DATA POINTS	15
MEAN ABSOLUTE ERROR	16.1
REFERENCES	17

NAME (2-PROPYL) BENZENE (ISOPROPYLBEN.)  
 FORMULA C9 H12

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	9.28	517.17	276.22
CALC. FROM CORRELATION	9.36	531.04	277.63

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.073	1.075
5.0	0.988	0.992
10.0	0.914	0.918
15.0	0.847	0.851
20.0	0.789	0.792
25.0	0.737	0.738
30.0	0.691	0.690
35.0	0.648	0.646
40.0	0.610	0.607
45.0	0.575	0.571
50.0	0.543	0.538
55.0	0.514	0.508
60.0	0.489	0.480

NUMBER OF DATA POINTS	13
MEAN ABSOLUTE ERROR	0.6
REFERENCES	17

NAME 1,2,4-TRIMETHYLBENZENE  
 FORMULA C9 H13

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	10.57	872.74	297.75
CALC. FROM CORRELATION	10.18	630.86	291.50

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	1.008	0.895
30.0	0.909	0.826
35.0	0.810	0.764

NUMBER OF DATA POINTS	3
MEAN ABSOLUTE ERROR	8.7
REFERENCES	17

NAME	BIPHENYL		
FORMULA	C12 H10		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	16.35	733.87	369.58
CALC. FROM CORRELATION	16.35	717.60	369.58
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
100.0	0.948	0.958	
125.0	0.718	0.725	
150.0	0.560	0.568	
175.0	0.452	0.457	
200.0	0.371	0.376	
225.0	0.314	0.315	
70.0	1.490	1.411	
100.0	0.970	0.958	
100.0	0.955	0.958	
150.0	0.562	0.568	
200.0	0.374	0.376	
250.0	0.267	0.269	
300.0	0.202	0.204	
350.0	0.160	0.162	
400.0	0.128	0.133	
450.0	0.106	0.112	
NUMBER OF DATA POINTS		16	
MEAN ABSOLUTE ERROR		1.7	
REFERENCES		21	

NAME	O-TERPHENYL		
FORMULA	C18 H14		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	27.28	1094.06	461.27
CALC. FROM CORRELATION	27.75	1043.56	465.10
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
100.0	4.400	3.571	
150.0	1.550	1.669	
200.0	0.808	0.916	
250.0	0.507	0.564	
300.0	0.351	0.378	
350.0	0.254	0.270	
400.0	0.194	0.203	
450.0	0.154	0.158	
NUMBER OF DATA POINTS		8	
MEAN ABSOLUTE ERROR		9.0	
REFERENCES		21	

NAME	M-TERPHENYL		
FORMULA	C18 H14		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	27.24	940.58	460.94
CALC. FROM CORRELATION	27.35	1006.64	461.84
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
150.0	1.610	1.582	
200.0	0.895	0.887	
250.0	0.580	0.555	
300.0	0.408	0.377	
350.0	0.303	0.273	
400.0	0.236	0.207	
450.0	0.190	0.163	
NUMBER OF DATA POINTS	7		
MEAN ABSOLUTE ERROR	7.3		
REFERENCES	21		

NAME	P-TERPHENYL		
FORMULA	C18 H14		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	27.26	911.01	461.10
CALC. FROM CORRELATION	27.20	958.33	460.61
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
250.0	0.600	0.564	
300.0	0.424	0.390	
350.0	0.315	0.287	
400.0	0.246	0.220	
450.0	0.198	0.176	
NUMBER OF DATA POINTS	5		
MEAN ABSOLUTE ERROR	8.9		
REFERENCES	21		

NAME METHANOL

FORMULA C H4 O

CONSTANTS NE B TO(DEG.K) A

FROM EXPERIMENTAL DATA 8.43 555.30 260.64  
CALC. FROM CORRELATION 11.33 817.55 309.34

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
40.0	0.456	0.928
-84.2	6.800	48.344
-72.5	4.360	27.064
-44.5	1.980	8.569
-22.3	1.220	4.130
0.0	0.820	2.239
15.0	0.623	1.564
20.0	0.597	1.399
50.0	0.403	0.771
25.0	0.547	1.256
30.0	0.510	1.132
5.0	0.746	1.978
10.0	0.688	1.755
15.0	0.637	1.564
20.0	0.592	1.399
25.0	0.551	1.256
30.0	0.514	1.132
35.0	0.481	1.023
40.0	0.450	0.928
45.0	0.422	0.845
50.0	0.396	0.771
55.0	0.372	0.705
60.0	0.350	0.647
65.0	0.329	0.595

NUMBER OF DATA POINTS 24  
MEAN ABSOLUTE ERROR 172.0  
REFERENCES 19, 20

NAME ETHANOL

FORMULA C2 H6 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 10.77 686.64 300.88  
CALC. FROM CORRELATION 12.05 893.19 319.62

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-98.1	44.000	203.201
-89.8	28.400	119.310
-71.5	13.200	43.115
-59.4	8.410	24.227
-52.6	6.870	17.977
-32.0	3.840	8.115
-17.6	2.680	5.016
-0.3	1.800	3.012
0.0	1.773	2.987
10.0	1.466	2.290
20.0	1.200	1.787
30.0	1.003	1.418
40.0	0.834	1.142
50.0	0.702	0.932
60.0	0.592	0.770
70.0	0.504	0.643
0.0	1.770	2.987
5.0	1.600	2.609
10.0	1.445	2.290
15.0	1.306	2.019
20.0	1.118	1.787
25.0	1.084	1.589
30.0	0.991	1.418
35.0	0.904	1.270
40.0	0.826	1.142
50.0	0.641	0.932
60.0	0.590	0.770
70.0	0.563	0.643
75.0	0.464	0.590

NUMBER OF DATA POINTS 29  
MEAN ABSOLUTE ERROR 84.7

NAME PROPANOL

FORMULA C3 H8 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 12.66 951.04 327.83  
CALC. FROM CORRELATION 12.78 968.09 329.40

TEMP. (DEG.C)	EXP.	VISCOSITY (CP)	CALC.
7.3	3.145		3.253
15.1	2.555		2.630
22.9	2.101		2.145
30.8	1.732		1.761
31.0	1.724		1.753
38.8	1.440		1.460
46.5	1.218		1.230
54.3	1.030		1.040
61.7	0.888		0.895
69.0	0.771		0.776
76.8	0.666		0.673
84.8	0.576		0.583
95.6	0.477		0.486
0.0	3.833		4.028
15.0	2.520		2.634
20.0	2.256		2.308
30.0	1.720		1.796
40.0	1.405		1.420
50.0	1.130		1.140
70.0	0.760		0.762

NUMBER OF DATA POINTS 20  
MEAN ABSOLUTE ERROR 2.0  
REFERENCES 18, 20

NAME 1-BUTANOL

FORMULA C4 H10 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 13.51 1004.83 338.59  
CALC. FROM CORRELATION 13.50 1040.95 338.47

TEMP. (DEG.C)	EXP.	VISCOSITY (CP)	CALC.
-50.9	36.100		40.550
-30.1	14.700		16.114
-22.4	11.100		11.904
-14.1	8.380		8.764
0.0	5.186		5.436
10.7	3.796		3.906
15.0	3.379		3.443
20.0	2.948		2.988
21.8	2.801		2.840
30.0	2.300		2.281
31.7	2.172		2.181
40.0	1.782		1.772
42.9	1.661		1.652
50.0	1.411		1.399
52.2	1.344		1.331
70.0	0.930		0.908
72.2	0.886		0.868
83.1	0.718		0.702
100.0	0.540		0.518
103.0	0.509		0.492
114.1	0.425		0.410

NUMBER OF DATA POINTS 21  
MEAN ABSOLUTE ERROR 3.2  
REFERENCES 18, 20

NAME 1-PENTANOL  
 FORMULA C5 H12 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	14.45	1151.14	349.62
CALC. FROM CORRELATION	14.23	1113.00	347.12

TEMP. (DEG.C)	EXP.	VISCOSITY (CP)	CALC.
0.0	8.790		7.381
10.0	6.120		5.299
20.0	4.400		3.892
30.0	3.240		2.917
40.0	2.430		2.227
50.0	1.862		1.729
60.0	1.452		1.362
70.0	1.148		1.089
80.0	0.927		0.881
90.0	0.755		0.722
100.0	0.627		0.597
110.0	0.527		0.499
120.0	0.449		0.421
130.0	0.390		0.358

NUMBER OF DATA POINTS 14  
 MEAN ABSOLUTE ERROR 8.0  
 REFERENCES 19

NAME 1-HEXANOL  
 FORMULA C6 H14 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	14.93	1179.42	354.94
CALC. FROM CORRELATION	14.95	1182.52	355.16

TEMP. (DEG.C)	EXP.	VISCOSITY (CP)	CALC.
25.0	4.370		4.330
50.0	2.160		2.136

NUMBER OF DATA POINTS 2  
 MEAN ABSOLUTE ERROR 1.0  
 REFERENCES 18

NAME 1-HEPTANOL  
 FORMULA C7 H16 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	15.58	1287.04	361.83
CALC. FROM CORRELATION	15.67	1250.49	362.76

TEMP. (DEG.C)	EXP.	VISCOSITY (CP)	CALC.
15.0	8.530		7.806
25.0	5.680		5.583
50.0	2.680		2.645
90.0	1.000		0.991

NUMBER OF DATA POINTS 4  
 MEAN ABSOLUTE ERROR 3.1  
 REFERENCES 18



NAME 1-OCTANOL

A 81

FORMULA C8 H18 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 16.39 1312.09 369.97  
CALC. FROM CORRELATION 16.40 1317.83 370.07

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
15.0	10.600	10.285
25.0	7.210	7.225
50.0	3.220	3.288
90.0	1.210	1.169

NUMBER OF DATA POINTS 4  
MEAN ABSOLUTE ERROR 2.2  
REFERENCES 18, 20

NAME 2-PROPANOL (ISOPROPYL ALCOHOL)

FORMULA C3 H8 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 12.33 1139.72 323.44  
CALC. FROM CORRELATION 12.38 1141.35 324.12

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	4.502	4.481
7.2	3.557	3.544
14.4	2.816	2.802
22.2	2.220	2.201
30.5	1.727	1.724
37.9	1.405	1.405
45.1	1.160	1.159
52.0	0.977	0.975
59.4	0.816	0.814
66.6	0.692	0.688
72.0	0.614	0.610
78.1	0.541	0.535

NUMBER OF DATA POINTS 12  
MEAN ABSOLUTE ERROR 0.4  
REFERENCES 18

NAME 2-METHYLPROPANOL-1 (ISOBUTYL ALCOHOL)

FORMULA C4 H10 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 13.76 1211.09 341.61  
CALC. FROM CORRELATION 13.74 1159.03 341.37

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	7.911	6.932
10.0	5.573	4.990
19.0	3.978	3.730
27.8	3.066	2.859
38.2	2.239	2.127
47.4	1.722	1.659
56.5	1.357	1.321
65.9	1.070	1.053
74.6	0.875	0.866
83.9	0.717	0.709
93.8	0.586	0.579
105.1	0.475	0.467
15.0	4.703	4.236

NUMBER OF DATA POINTS 13  
MEAN ABSOLUTE ERROR 4.9

NAME 3-METHYLBUTANOL-1 (ISOAMYL ALCOHOL)  
 FORMULA C5 H12 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	14.44	1148.76	349.51
CALC. FROM CORRELATION	14.46	1229.60	349.74

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.2	8.461	9.586
11.9	5.625	6.274
23.8	3.863	4.211
34.3	2.830	3.049
47.7	1.965	2.074
58.7	1.485	1.545
71.0	1.121	1.139
81.9	0.889	0.886
94.9	0.687	0.668
104.6	0.579	0.549
117.6	0.465	0.427
128.1	0.397	0.354
10.0	6.200	6.709

NUMBER OF DATA POINTS	13
MEAN ABSOLUTE ERROR	6.8
REFERENCES	18

NAME 2-METHYLBUTANOL-1 (D-AMYL ALCOHOL)  
 FORMULA C5 H12 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	14.47	1259.39	349.85
CALC. FROM CORRELATION	14.46	1229.60	349.74

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	11.220	9.674
10.0	7.460	6.709
20.0	5.110	4.770
30.0	3.580	3.469
40.0	2.610	2.574
50.0	1.940	1.946
60.0	1.473	1.496
70.0	1.148	1.168
80.0	0.908	0.925
90.0	0.735	0.741
100.0	0.603	0.602
110.0	0.506	0.494
120.0	0.429	0.409
130.0	0.370	0.342

NUMBER OF DATA POINTS	14
MEAN ABSOLUTE ERROR	4.0
REFERENCES	19

NAME 2-METHYLPROPANOL-2 (TERT.BUTYL ALCOHOL)  
 FORMULA C4 H10 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.12	1727.96	333.75
CALC. FROM CORRELATION	13.02	1687.05	332.49

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
22.4	5.887	4.303
32.1	3.004	2.837
37.2	2.367	2.298
42.4	1.909	1.871
47.8	1.550	1.520
53.0	1.296	1.255
57.9	1.097	1.050
62.1	0.968	0.908
68.3	0.810	0.734
73.5	0.706	0.621
77.0	0.645	0.554

NUMBER OF DATA POINTS 11  
 MEAN ABSOLUTE ERROR 8.0  
 REFERENCES 18

NAME 2-METHYLBUTANOL-2 (TERT.AMYL ALCOHOL)  
 FORMULA C5 H12 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.36	1502.01	336.75
CALC. FROM CORRELATION	13.42	1699.08	337.49

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.5	13.797	14.944
9.3	8.203	9.563
18.5	4.998	6.187
27.2	3.364	4.184
36.4	2.332	2.843
45.0	1.713	2.018
53.2	1.320	1.486
62.9	0.994	1.049
71.9	0.793	0.775
81.1	0.640	0.578
89.9	0.530	0.441
95.7	0.472	0.373
96.7	0.464	0.363
25.0	3.697	4.614
40.0	1.975	2.461
50.0	1.401	1.672
70.0	0.798	0.826
85.0	0.573	0.512

NUMBER OF DATA POINTS 18  
 MEAN ABSOLUTE ERROR 15.8  
 REFERENCES 18

NAME BENZYL ALCOHOL  
 FORMULA C7 H8 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	16.11	1087.98	367.21
CALC. FROM CORRELATION	15.51	1449.20	361.11

TEMP. (DEG.C)                      VISCOSITY (CP)

	EXP.	CALC.
20.0	5.582	8.515
25.0	5.054	7.035
30.0	4.326	5.849
35.0	3.739	4.893
40.0	3.288	4.116
45.0	2.906	3.481
50.0	2.574	2.960

NUMBER OF DATA POINTS                      7  
 MEAN ABSOLUTE ERROR                      31.1  
 REFERENCES                                      18

NAME 2-PHENYLETHANOL  
 FORMULA C8 H10 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	15.72	1450.09	363.27
CALC. FROM CORRELATION	16.24	1516.89	368.50

TEMP. (DEG.C)                      VISCOSITY (CP)

	EXP.	CALC.
25.0	7.610	9.356
50.0	3.200	3.780

NUMBER OF DATA POINTS                      2  
 MEAN ABSOLUTE ERROR                      20.5  
 REFERENCES                                      18

NAME PHENOL  
 FORMULA C6 H6 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	16.40	1405.48	370.07
CALC. FROM CORRELATION	16.17	1510.47	367.81

TEMP. (DEG.C)                      VISCOSITY (CP)

	EXP.	CALC.
18.3	12.700	11.905
50.0	3.490	3.693
60.0	2.610	2.673
70.0	2.030	1.972
90.0	1.260	1.129
35.0	6.024	6.236
40.0	4.803	5.207
45.0	4.000	4.373
50.0	3.419	3.693
55.0	2.936	3.134
60.0	2.562	2.673
65.0	2.249	2.291
70.0	1.997	1.972
75.0	1.779	1.705
80.0	1.596	1.480
85.0	1.439	1.290
90.0	1.306	1.129

NUMBER OF DATA POINTS                      17  
 MEAN ABSOLUTE ERROR                      6.3  
 REFERENCES                                      18, 20

NAME O-CHLOROPHENOL

A 85

FORMULA C6 H5 CL O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 15.67 982.38 362.76  
CALC. FROM CORRELATION 16.17 921.50 367.81

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	10.700	7.381
10.0	6.390	5.610
20.0	4.210	4.345
30.0	3.080	3.422
40.0	2.320	2.736
60.0	1.510	1.822
80.0	1.070	1.270
110.0	0.760	0.794
150.0	0.540	0.470
45.0	2.291	2.460
25.0	4.110	3.848
50.0	2.000	2.219

NUMBER OF DATA POINTS 12  
MEAN ABSOLUTE ERROR 13.1  
REFERENCES 18

NAME M-CHLOROPHENOL

FORMULA C6 H5 CL O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 15.59 1775.58 361.94  
CALC. FROM CORRELATION 16.17 1520.69 367.81

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
45.0	4.820	4.417
25.0	11.500	9.242
50.0	4.000	3.726

NUMBER OF DATA POINTS 3  
MEAN ABSOLUTE ERROR 11.6  
REFERENCES 18

NAME P-CHLOROPHENOL

FORMULA C6 H5 CL O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 16.07 1862.01 366.81  
CALC. FROM CORRELATION 16.17 1475.87 367.81

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
45.0	6.150	4.228
50.0	5.000	3.584

NUMBER OF DATA POINTS 2  
MEAN ABSOLUTE ERROR 29.8  
REFERENCES 18

NAME 2-HYDROXYTOLUENE (O-CRESOL)

A 86

FORMULA C7 H8 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	15.95	1533.41	365.61
CALC. FROM CORRELATION	16.17	938.53	367.81

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	39.700	7.658
10.0	17.900	5.792
20.0	9.560	4.464
30.0	6.120	3.501
40.0	4.100	2.788
60.0	2.240	1.842
80.0	1.430	1.276
110.0	0.890	0.790

NUMBER OF DATA POINTS	8
MEAN ABSOLUTE ERROR	39.5
REFERENCES	18

NAME 3-HYDROXYTOLUENE (M-CRESOL)

FORMULA C7 H8 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	16.47	1785.57	370.75
CALC. FROM CORRELATION	16.17	1537.73	367.81

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	84.400	28.093
10.0	34.400	17.774
20.0	16.400	11.602
30.0	9.470	7.790
40.0	5.920	5.365
60.0	2.990	2.721
80.0	1.800	1.491
110.0	1.020	0.680

NUMBER OF DATA POINTS	8
MEAN ABSOLUTE ERROR	28.9
REFERENCES	18

NAME 4-HYDROXYTOLUENE (P-CRESOL)

FORMULA C7 H8 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	16.67	1826.92	372.68
CALC. FROM CORRELATION	16.17	1492.90	367.81

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	98.400	25.490
10.0	39.600	16.344
20.0	18.900	10.802
30.0	10.500	7.337
40.0	6.540	5.108
60.0	3.280	2.643
80.0	1.930	1.473
110.0	1.080	0.688

NUMBER OF DATA POINTS	8
MEAN ABSOLUTE ERROR	38.4
REFERENCES	18

NAME O-NITROPHENOL

FORMULA C6 H5 N O3

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 16.59 839.02 371.91  
CALC. FROM CORRELATION 16.17 1021.79 367.81

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
40.0	2.750	3.053
60.0	1.820	1.945
80.0	1.350	1.304
45.0	2.388	2.713

NUMBER OF DATA POINTS	4
MEAN ABSOLUTE ERROR	8.7
REFERENCES	18

NAME 3-PROPENOL (ALLYL ALCOHOL)

FORMULA C3 H6 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 11.19 793.52 307.26  
CALC. FROM CORRELATION 12.50 962.39 325.72

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
7.4	1.810	2.989
15.3	1.508	2.407
22.8	1.283	1.982
30.5	1.096	1.639
38.0	0.946	1.373
46.4	0.811	1.141
54.1	0.708	0.969
60.8	0.633	0.846
68.9	0.557	0.723
76.8	0.492	0.624
84.5	0.440	0.545
92.3	0.394	0.478
95.2	0.379	0.455
0.0	2.145	3.703
15.0	1.490	2.427
20.0	1.363	2.129
30.0	1.070	1.659
40.0	0.914	1.314
70.0	0.553	0.708

NUMBER OF DATA POINTS	19
MEAN ABSOLUTE ERROR	43.4
REFERENCES	18, 20

NAME           HEXAHYDROCRESOL  
 FORMULA       C6 H12 O  
 CONSTANTS                   NE           B           TO(DEG.K)  
 FROM EXPERIMENTAL DATA   16.09   1864.02   367.01  
 CALC. FROM CORRELATION   17.15   1541.96   377.21

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
39.1	6.970	7.083
65.9	2.560	2.883
90.0	1.260	1.439
20.0	21.800	14.858

NUMBER OF DATA POINTS           4  
 MEAN ABSOLUTE ERROR           15.1  
 REFERENCES                       18

NAME           1,2-ETHANEDIOL (ETHYLENE GLYCOL)  
 FORMULA       C2 H6 O2  
 CONSTANTS                   NE           B           TO(DEG.K)  
 FROM EXPERIMENTAL DATA   20.07   1364.99   402.41  
 CALC. FROM CORRELATION   21.61   1385.28   414.98

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	19.900	24.388
40.0	9.130	12.173
60.0	4.950	6.605
80.0	3.020	3.840
100.0	1.990	2.367

NUMBER OF DATA POINTS           5  
 MEAN ABSOLUTE ERROR           27.1  
 REFERENCES                       20

NAME           1,2-PROPANEDIOL (PROPYLENE GLYCOL)  
 FORMULA       C3 H8 O2  
 CONSTANTS                   NE           B           TO(DEG.K)  
 FROM EXPERIMENTAL DATA   23.05   1404.20   426.74  
 CALC. FROM CORRELATION   22.66   1399.71   423.55

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
40.0	19.450	14.620
60.0	8.490	7.882
80.0	4.510	4.557
100.0	2.760	2.794
120.0	1.770	1.801
140.0	1.290	1.211
160.0	0.970	0.845
180.0	0.783	0.608

NUMBER OF DATA POINTS           8  
 MEAN ABSOLUTE ERROR           9.7  
 REFERENCES                       23



NAME METHANOIC ACID (FORMIC ACID)  
 FORMULA C H2 O2

CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 12.50 729.35 325.72  
 CALC. FROM CORRELATION 8.16 414.87 255.44

TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.

7.6	2.385	0.714
16.0	1.951	0.647
24.2	1.635	0.590
32.9	1.379	0.539
40.4	1.208	0.500
48.0	1.064	0.465
56.3	0.937	0.432
64.2	0.838	0.403
72.0	0.754	0.378
80.2	0.681	0.355
97.2	0.558	0.313
7.6	2.387	0.714
10.0	2.262	0.693
20.0	1.804	0.618
30.0	1.465	0.555
40.0	1.219	0.502
70.0	0.780	0.384
100.0	0.549	0.307

NUMBER OF DATA POINTS 18  
 MEAN ABSOLUTE ERROR 58.0  
 REFERENCES 18, 20

NAME ETHANOIC ACID (ACETIC ACID)  
 FORMULA C2 H4 O2

CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 11.12 600.94 306.21  
 CALC. FROM CORRELATION 9.52 503.48 280.41

TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.

30.9	1.025	0.725
39.9	0.903	0.650
48.5	0.806	0.589
57.5	0.721	0.534
68.1	0.638	0.478
76.7	0.580	0.440
84.5	0.534	0.409
94.0	0.484	0.377
102.9	0.445	0.349
112.6	0.406	0.323
15.0	1.310	0.895
18.0	1.300	0.858
25.2	1.155	0.780
30.0	1.040	0.733
41.0	1.000	0.641
59.0	0.700	0.525
70.0	0.600	0.470
100.0	0.430	0.358

NUMBER OF DATA POINTS 18  
 MEAN ABSOLUTE ERROR 26.3  
 REFERENCES 18, 20

NAME PROPANOIC ACID (PROPIONIC ACID)

FORMULA C3 H6 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 10.67 535.04 299.32

CALC. FROM CORRELATION 10.89 587.42 302.72

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
4.7	1.404	1.492
16.9	1.151	1.216
28.2	0.979	1.020
40.0	0.839	0.861
52.0	0.729	0.734
63.6	0.642	0.636
76.7	0.562	0.548
89.6	0.496	0.478
101.0	0.448	0.426
113.0	0.403	0.381
123.7	0.368	0.347
137.0	0.329	0.310
10.0	1.289	1.362
15.0	1.180	1.253
20.0	1.102	1.157
40.0	0.845	0.862

NUMBER OF DATA POINTS 16  
 MEAN ABSOLUTE ERROR 4.2  
 REFERENCES 18, 20

NAME BUTANOIC ACID (BUTYRIC ACID)

FORMULA C4 H8 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 12.16 640.42 321.13

CALC. FROM CORRELATION 12.25 665.40 322.36

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
3.2	2.128	2.205
18.0	1.591	1.664
31.8	1.263	1.311
44.5	1.049	1.073
59.4	0.860	0.864
73.4	0.727	0.718
86.5	0.628	0.610
101.5	0.537	0.515
115.2	0.470	0.446
130.3	0.351	0.385
145.0	0.358	0.337
155.8	0.327	0.307
0.0	2.286	2.354
15.0	1.810	1.758
20.0	1.540	1.605
40.0	1.120	1.150
50.0	0.975	0.988
70.0	0.760	0.750
100.0	0.551	0.524

NUMBER OF DATA POINTS 19  
 MEAN ABSOLUTE ERROR 3.7  
 REFERENCES 18, 20

NAME PENTANOIC ACID (VALERIC ACID)

FORMULA C5 H10 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 13.72 729.09 341.13  
CALC. FROM CORRELATION 13.62 738.50 339.93

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
16.5	2.410	2.382
20.0	2.300	2.221
25.0	2.050	2.015
50.0	1.315	1.296
70.0	0.986	0.954
90.0	0.753	0.726

NUMBER OF DATA POINTS 6  
 MEAN ABSOLUTE ERROR 2.4  
 REFERENCES 18

NAME HEXANOIC ACID (CAPROIC ACID)

FORMULA C6 H12 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 15.36 793.55 359.54  
CALC. FROM CORRELATION 14.98 805.61 355.48

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
16.1	3.560	3.302
20.0	3.230	3.032
25.0	2.840	2.727
40.0	2.120	2.024
50.0	1.750	1.685
70.0	1.290	1.206
90.0	0.980	0.896

NUMBER OF DATA POINTS 7  
 MEAN ABSOLUTE ERROR 5.8  
 REFERENCES 18

NAME HEPTANOIC ACID (ENANTHIC ACID)

FORMULA C7 H14 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 16.77 856.73 373.63  
CALC. FROM CORRELATION 16.35 867.64 369.58

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	4.357	4.092
17.5	4.600	4.339
20.0	4.330	4.092
25.0	3.800	3.650
50.0	2.300	2.174
70.0	1.610	1.516
90.0	1.190	1.100

NUMBER OF DATA POINTS 7  
 MEAN ABSOLUTE ERROR 5.7  
 REFERENCES 18

NAME           OCTANOIC ACID (N-CAPRYLIC ACID)  
 FORMULA       C8 H16 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	17.13	979.13	377.02
CALC. FROM CORRELATION	17.71	923.65	382.32

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	5.748	5.430
50.0	2.620	2.769
70.0	1.840	1.887
90.0	1.300	1.341

NUMBER OF DATA POINTS	4
MEAN ABSOLUTE ERROR	4.2
REFERENCES	18

NAME           NONANOIC ACID (PELARGONIC ACID)  
 FORMULA       C9 H18 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	19.05	1026.92	393.97
CALC. FROM CORRELATION	19.08	974.40	394.22

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	8.080	7.113
25.0	7.000	6.256
50.0	3.790	3.495
70.0	2.410	2.332
90.0	1.730	1.627

NUMBER OF DATA POINTS	5
MEAN ABSOLUTE ERROR	7.9
REFERENCES	18

NAME           DECANOIC ACID (CAPRIC ACID)  
 FORMULA       C10 H20 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	20.61	987.89	406.82
CALC. FROM CORRELATION	20.44	1021.17	405.43

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
50.0	4.340	4.378
70.0	2.880	2.865

NUMBER OF DATA POINTS	2
MEAN ABSOLUTE ERROR	0.7
REFERENCES	18

NAME DODECANOIC ACID (LAURIC ACID)  
 FORMULA C12 H24 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	22.90	1135.68	425.51
CALC. FROM CORRELATION	22.71	1103.32	423.96

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
50.0	7.300	6.483
60.0	5.610	5.120
70.0	4.430	4.100
80.0	3.620	3.325
90.0	2.990	2.727

NUMBER OF DATA POINTS	5
MEAN ABSOLUTE ERROR	8.9
REFERENCES	18

NAME TETRADECANOIC ACID (MYRISTIC ACID)  
 FORMULA C14 H28 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	24.65	1174.64	439.80
CALC. FROM CORRELATION	24.71	1175.70	440.29

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
60.0	7.430	7.222
70.0	5.830	5.699
80.0	4.640	4.558
90.0	3.810	3.691

NUMBER OF DATA POINTS	4
MEAN ABSOLUTE ERROR	2.5
REFERENCES	18

NAME HEXADECANOIC ACID (PALMITIC ACID)  
 FORMULA C16 H32 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	26.67	1209.47	456.29
CALC. FROM CORRELATION	26.71	1248.08	456.61

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
70.0	7.800	8.011
80.0	6.100	6.320
90.0	5.000	5.051
95.0	4.470	4.536

NUMBER OF DATA POINTS	4
MEAN ABSOLUTE ERROR	2.2
REFERENCES	18

NAME OCTADECANOIC ACID (STEARIC ACID)

FORMULA C18 H36 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	25.92	1449.71	450.16
CALC. FROM CORRELATION	28.71	1320.45	472.94

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
70.0	9.870	11.374
80.0	7.720	8.850
90.0	6.100	6.982
95.0	5.470	6.232
98.0	5.180	5.829
70.0	11.600	11.374

NUMBER OF DATA POINTS 6  
 MEAN ABSOLUTE ERROR 12.1  
 REFERENCES 18

NAME 9-OCTADECENOIC ACID (OLEIC ACID)

FORMULA C18 H34 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	28.01	1198.58	467.22
CALC. FROM CORRELATION	27.80	1392.98	465.51

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	36.560	57.441
25.0	29.350	47.813
100.0	4.136	5.502
180.0	1.336	1.207

NUMBER OF DATA POINTS 4  
 MEAN ABSOLUTE ERROR 40.7  
 REFERENCES 18

NAME 2-METHYLPROPANOIC ACID (ISOBUTYRIC ACID)

FORMULA C4 H8 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	11.46	588.65	311.24
CALC. FROM CORRELATION	12.01	652.02	319.06

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
3.7	1.761	2.049
17.0	1.383	1.598
29.3	1.137	1.294
42.5	0.945	1.052
54.5	0.811	0.883
70.5	0.674	0.714
88.1	0.560	0.577
98.9	0.499	0.511
109.8	0.450	0.456
121.0	0.407	0.408
134.5	0.361	0.360
147.5	0.323	0.321

NUMBER OF DATA POINTS 12  
 MEAN ABSOLUTE ERROR 6.7  
 REFERENCES 18

NAME            BENZOIC ACID  
 FORMULA        C7 H6 O2  
 CONSTANTS                    NE            B            TO(DEG.K)  
 FROM EXPERIMENTAL DATA    20.74    2617.62    407.88  
 CALC. FROM CORRELATION    21.16    1061.08    411.31  
 TEMP.                            VISCOSITY  
 (DEG.C)                        (CP)  
                                   EXP.            CALC.  
   122.5                        1.670            1.265  
   130.0                        1.260            1.128  
 NUMBER OF DATA POINTS            2  
 MEAN ABSOLUTE ERROR            17.4  
 REFERENCES                        18

NAME            PHENYLETHANOIC ACID (PHENYLACETIC ACID)  
 FORMULA        C8 H10 O2  
 CONSTANTS                    NE            B            TO(DEG.K)  
 FROM EXPERIMENTAL DATA    22.79    1073.11    424.62  
 CALC. FROM CORRELATION    22.52    1123.29    422.41  
 TEMP.                            VISCOSITY  
 (DEG.C)                        (CP)  
                                   EXP.            CALC.  
   77.0                         3.540            3.538  
   130.0                        1.400            1.340  
 NUMBER OF DATA POINTS            2  
 MEAN ABSOLUTE ERROR            2.2  
 REFERENCES                        18

NAME            3-PHENYLPROPANOIC ACID (B-PHENYLPROPIONIC ACID)  
 FORMULA        C9 H10 O2  
 CONSTANTS                    NE            B            TO(DEG.K)  
 FROM EXPERIMENTAL DATA    24.03    1224.95    434.74  
 CALC. FROM CORRELATION    23.89    1185.97    433.59  
 TEMP.                            VISCOSITY  
 (DEG.C)                        (CP)  
                                   EXP.            CALC.  
   49.7                         9.800            8.672  
   130.0                        1.720            1.609  
 NUMBER OF DATA POINTS            2  
 MEAN ABSOLUTE ERROR            9.0  
 REFERENCES                        18

NAME METHANOIC ACID, METHYL ESTER (METHYL FORMATE)

FORMULA C<sub>2</sub> H<sub>4</sub> O<sub>2</sub>

CONSTANTS	NE	B	T0( DEG.K)
FROM EXPERIMENTAL DATA	6.15	363.19	212.70
CALC. FROM CORRELATION	5.88	332.56	206.38

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.6	0.426	0.401
6.4	0.400	0.379
10.9	0.381	0.363
15.6	0.363	0.347
20.1	0.347	0.333
25.3	0.330	0.318
29.2	0.319	0.308

NUMBER OF DATA POINTS	7
MEAN ABSOLUTE ERROR	4.5
REFERENCES	18

NAME ETHANOIC ACID, METHYL ESTER (METHYL ACETATE)

FORMULA C<sub>3</sub> H<sub>6</sub> O<sub>2</sub>

CONSTANTS	NE	B	T0( DEG.K)
FROM EXPERIMENTAL DATA	6.65	408.62	224.03
CALC. FROM CORRELATION	6.65	385.40	224.03

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.476	0.488
6.3	0.444	0.456
16.7	0.395	0.407
22.7	0.371	0.382
28.4	0.349	0.361
33.8	0.330	0.343
40.4	0.310	0.323
40.1	0.294	0.324
50.3	0.283	0.296
54.3	0.273	0.286
0.3	0.484	0.490
6.3	0.476	0.488
16.3	0.444	0.456
16.7	0.395	0.407
20.0	0.381	0.393
22.7	0.371	0.382
28.4	0.349	0.361
40.0	0.320	0.324
33.8	0.330	0.343
40.4	0.310	0.323
40.1	0.294	0.324
50.3	0.283	0.296
54.3	0.273	0.286

NUMBER OF DATA POINTS	23
MEAN ABSOLUTE ERROR	3.9
REFERENCES	18



NAME PROPANOIC ACID, METHYL ESTER (METHYL PROPIONATE) A 97

FORMULA C4 H8 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 7.23 428.74 236.58  
CALC. FROM CORRELATION 7.42 436.59 240.55

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	0.579	0.604
9.7	0.514	0.535
16.8	0.473	0.491
23.5	0.437	0.454
29.6	0.410	0.424
38.7	0.375	0.385
45.6	0.348	0.359
52.6	0.325	0.335
60.4	0.303	0.312
68.5	0.281	0.290

NUMBER OF DATA POINTS 10  
MEAN ABSOLUTE ERROR 3.5  
REFERENCES 18

NAME BUTANOIC ACID, METHYL ESTER (METHYL BUTYRATE)

FORMULA C5 H10 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 8.12 479.35 254.66  
CALC. FROM CORRELATION 8.19 486.13 256.02

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.755	0.756
10.4	0.653	0.654
20.4	0.573	0.572
30.6	0.505	0.503
40.6	0.450	0.447
50.3	0.406	0.402
60.2	0.367	0.363
71.5	0.329	0.325
79.4	0.306	0.302
90.6	0.277	0.274
98.3	0.259	0.257

NUMBER OF DATA POINTS 11  
MEAN ABSOLUTE ERROR 0.7  
REFERENCES 18

NAME PENTANOIC ACID, METHYL ESTER (METHYL VALERATE)

FORMULA C6 H10 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 8.96 533.98 270.49

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.712	0.704

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 1.2  
REFERENCES 18

NAME DODECANOIC ACID, METHYL ESTER (METHYL LAURATE)

FORMULA C13 H26 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 15.28 853.20 358.70

CALC. FROM CORRELATION 14.35 821.32 348.49

TEMP.  
(DEG.C)

VISCOSITY  
(CP)

EXP.

CALC.

25.0  
50.0

3.080  
1.850

2.499  
1.530

NUMBER OF DATA POINTS

2

MEAN ABSOLUTE ERROR

18.1

REFERENCES

18

NAME METHANOIC ACID, ETHYL ESTER (ETHYL FORMATE)

FORMULA C3 H6 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 6.75 400.91 226.23

CALC. FROM CORRELATION 6.65 385.40 224.03

TEMP.  
(DEG.C)

VISCOSITY  
(CP)

EXP.

CALC.

0.5  
6.6  
11.5  
16.6  
22.6  
27.9  
33.3  
38.1  
43.4  
48.6  
52.0  
20.0

0.502  
0.466  
0.441  
0.417  
0.391  
0.369  
0.350  
0.334  
0.318  
0.303  
0.294  
0.402

0.488  
0.454  
0.430  
0.407  
0.383  
0.363  
0.345  
0.330  
0.314  
0.300  
0.292  
0.393

NUMBER OF DATA POINTS

12

MEAN ABSOLUTE ERROR

1.8

REFERENCES

18, 20

NAME ETHANOIC ACID, ETHYL ESTER (ETHYL ACETATE)  
 FORMULA C4 H8 O2

CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 7.20 427.38 235.94  
 CALC. FROM CORRELATION 7.42 436.59 240.55

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.576	0.605
8.9	0.514	0.541
14.5	0.479	0.505
21.4	0.442	0.465
28.1	0.410	0.431
36.5	0.374	0.393
44.1	0.345	0.364
51.1	0.322	0.340
60.2	0.296	0.313
68.4	0.274	0.291
74.6	0.259	0.276
0.0	0.582	0.607
9.0	0.516	0.540
10.0	0.512	0.533
15.0	0.473	0.501
20.0	0.455	0.472
25.0	0.441	0.446
30.0	0.400	0.422
50.0	0.345	0.344
75.0	0.283	0.275

NUMBER OF DATA POINTS 20  
 MEAN ABSOLUTE ERROR 4.7  
 REFERENCES 18, 20

NAME PROPANOIC ACID, ETHYL ESTER (ETHYL PROPIONATE)  
 FORMULA C5 H10 O2

CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 7.82 463.31 248.72  
 CALC. FROM CORRELATION 8.19 486.13 256.02

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	0.689	0.756
10.1	0.604	0.657
20.1	0.531	0.574
29.7	0.473	0.508
39.9	0.423	0.451
49.7	0.382	0.405
59.1	0.348	0.367
69.2	0.315	0.332
72.1	0.307	0.323
80.1	0.285	0.300
89.7	0.263	0.276
15.0	0.564	0.614

NUMBER OF DATA POINTS 12  
 MEAN ABSOLUTE ERROR 6.8  
 REFERENCES 18, 20

NAME BUTANOIC ACID, ETHYL ESTER (ETHYL BUTYRATE)

FORMULA C6 H12 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 8.62 489.95 264.22

CALC. FROM CORRELATION 8.96 533.98 270.49

TEMP.  
(DEG.C)

VISCOSITY  
(CP)

	EXP.	CALC.
20.0	0.668	0.704
25.0	0.628	0.656
50.0	0.466	0.477
70.0	0.381	0.382
15.0	0.711	0.757

NUMBER OF DATA POINTS

5

MEAN ABSOLUTE ERROR

3.7

REFERENCES

18, 20

NAME PENTANOIC ACID, ETHYL ESTER (ETHYL VALERATE)

FORMULA C7 H14 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 9.56 602.07 281.10

CALC. FROM CORRELATION 9.73 580.16 284.01

TEMP.  
(DEG.C)

VISCOSITY  
(CP)

	EXP.	CALC.
20.0	0.836	0.863
25.0	0.760	0.800
50.0	0.536	0.566

NUMBER OF DATA POINTS

3

MEAN ABSOLUTE ERROR

4.7

REFERENCES

18

NAME OCTANOIC ACID, ETHYL ESTER (ETHYL CAPRYLATE)

FORMULA C10 H20 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 11.93 642.67 317.95

CALC. FROM CORRELATION 12.04 708.50 319.48

TEMP.  
(DEG.C)

VISCOSITY  
(CP)

	EXP.	CALC.
25.0	1.380	1.441
50.0	0.940	0.943

NUMBER OF DATA POINTS

2

MEAN ABSOLUTE ERROR

2.4

REFERENCES

18

NAME NONANOIC ACID ETHYL ESTER (ETHYL PELARGONATE)  
 FORMULA C11 H22 O2  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 12.76 703.62 329.14  
 CALC. FROM CORRELATION 12.81 747.84 329.79  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 25.0 1.690 1.740  
 50.0 1.110 1.113  
 NUMBER OF DATA POINTS 2  
 MEAN ABSOLUTE ERROR 1.6  
 REFERENCES 18

NAME HEXADECANOIC ACID, ETHYL ESTER (ETHYL PALMITATE)  
 FORMULA C18 H36 O2  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 17.77 1015.54 382.86  
 CALC. FROM CORRELATION 18.20 974.13 386.67  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 25.0 5.760 5.596  
 50.0 3.140 3.127  
 NUMBER OF DATA POINTS 2  
 MEAN ABSOLUTE ERROR 1.6  
 REFERENCES 18

NAME OCTADECANOIC ACID, ETHYL ESTER (ETHYL STEARATE)  
 FORMULA C20 H40 O2  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
 CALC. FROM CORRELATION 19.74 1022.68 399.71  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 50.0 3.750 4.037  
 NUMBER OF DATA POINTS 1  
 MEAN ABSOLUTE ERROR 7.7  
 REFERENCES 18

NAME METHANOIC ACID, PROPYL ESTER (PROPYL FORMATE) A 102

FORMULA C4 H8 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 7.69 452.97 246.09  
CALC. FROM CORRELATION 7.42 436.59 240.55

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.665	0.604
7.3	0.604	0.552
15.5	0.546	0.498
23.2	0.498	0.455
30.8	0.456	0.418
38.5	0.418	0.385
45.7	0.387	0.358
54.1	0.365	0.330
61.6	0.331	0.309
67.1	0.314	0.294
75.0	0.293	0.275
77.5	0.286	0.269

NUMBER OF DATA POINTS 12  
MEAN ABSOLUTE ERROR 7.8  
REFERENCES 18

NAME ETHANOIC ACID, PROPYL ESTER (PROPYL ACETATE)

FORMULA C5 H10 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 8.18 489.53 255.83  
CALC. FROM CORRELATION 8.19 486.13 256.02

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	0.765	0.756
9.8	0.666	0.660
20.6	0.576	0.570
30.1	0.511	0.506
39.8	0.456	0.452
50.0	0.408	0.403
61.4	0.362	0.358
69.9	0.333	0.330
80.0	0.303	0.300
89.5	0.277	0.276
96.9	0.260	0.260

NUMBER OF DATA POINTS 11  
MEAN ABSOLUTE ERROR 0.8  
REFERENCES 18

NAME PROPANOIC ACID, PROPYL ESTER (PROPYL PROPIONATE)

FORMULA C6 H12 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 8.96 533.98 270.49

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.678	0.704

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 3.8  
REFERENCES 18

NAME BUTANOIC ACID, PROPYL ESTER (PROPYL BUTYRATE) A 103

FORMULA C7 H14 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	9.51	560.29	280.24
CALC. FROM CORRELATION	9.73	580.16	284.01

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.829	0.863
50.0	0.551	0.566

NUMBER OF DATA POINTS 2  
MEAN ABSOLUTE ERROR 3.4  
REFERENCES 18

NAME METHANOIC ACID, BUTYL ESTER (N-BUTYL FORMATE)

FORMULA C5 H10 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	8.19	486.13	256.02

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.562	0.575

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 2.3  
REFERENCES 18

NAME ETHANOIC ACID, PENTYL ESTER (AMYL ACETATE)

FORMULA C7 H14 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	10.25	1752.25	292.64
CALC. FROM CORRELATION	9.73	580.16	284.01

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
11.0	1.580	0.998
25.0	0.811	0.800

NUMBER OF DATA POINTS 2  
MEAN ABSOLUTE ERROR 19.1  
REFERENCES 18

NAME ETHANOIC ACID, BUTYL ESTER (N-BUTYL ACETATE)

FORMULA C6 H12 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	9.06	537.58	272.30
CALC. FROM CORRELATION	8.96	533.98	270.49

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.004	0.957
20.0	0.732	0.704
40.0	0.563	0.538

NUMBER OF DATA POINTS 3  
MEAN ABSOLUTE ERROR 4.3  
REFERENCES 20

NAME 2-ME.PROPANOIC ACID, ME.ESTER (ME.ISOBUTYRATE)

FORMULA C5 H10 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 7.69 451.21 246.09  
CALC. FROM CORRELATION 7.95 481.94 251.31

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.669	0.700
9.4	0.591	0.614
18.1	0.530	0.546
29.0	0.466	0.476
35.8	0.432	0.439
44.7	0.393	0.397
52.5	0.363	0.365
62.7	0.329	0.329
76.2	0.304	0.290
79.8	0.281	0.280
88.8	0.259	0.259

NUMBER OF DATA POINTS	11
MEAN ABSOLUTE ERROR	2.0
REFERENCES	18

NAME METHANOIC ACID, 2-PROPYL ESTER (ISOPROP.FORMATE)

FORMULA C4 H8 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 7.18 429.75 235.52

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.565	0.438

NUMBER OF DATA POINTS	1
MEAN ABSOLUTE ERROR	22.5
REFERENCES	18

NAME ETHANOIC ACID, 2-PROPYL ESTER (ISOPROP.ACETATE)

FORMULA C5 H10 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 7.95 479.80 251.31

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.525	0.534

NUMBER OF DATA POINTS	1
MEAN ABSOLUTE ERROR	1.7
REFERENCES	18



NAME METHANOIC ACID, 2-ME.PROP.ESTER (ISOBUT.FORMATE)  
 FORMULA C5 H10 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	28.86
CALC. FROM CORRELATION	7.95	479.80	251.31

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.665	0.534
20.0	0.644	0.534

NUMBER OF DATA POINTS	2
MEAN ABSOLUTE ERROR	18.4
REFERENCES	18

NAME PROPANOIC ACID, 2-ME.PROP.ESTER (PROPIONATE)  
 FORMULA C7 H14 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	9.49	574.88	279.89

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	0.670	0.748

NUMBER OF DATA POINTS	1
MEAN ABSOLUTE ERROR	11.7
REFERENCES	18

NAME ETHANOIC ACID, 2-ME.PROP.ESTER (ISOBUT.ACETATE)  
 FORMULA C6 H12 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	8.96	533.99	270.49
CALC. FROM CORRELATION	8.72	528.18	266.08

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.703	0.656
19.9	0.724	0.657
78.1	0.366	0.330
99.4	0.287	0.271

NUMBER OF DATA POINTS	4
MEAN ABSOLUTE ERROR	7.9
REFERENCES	18

NAME PHTALIC ACID DIETHYLESTER

FORMULA C14 H12 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	19.24	1131.83	395.56
CALC. FROM CORRELATION	19.00	1178.57	393.54

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	10.100	9.079
55.0	4.182	3.951

NUMBER OF DATA POINTS 2  
 MEAN ABSOLUTE ERROR 7.8  
 REFERENCES 18

NAME BENZOIC ACID, ETHYL ESTER (ETHYL BENZOATE)

FORMULA C9 H10 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.50	746.50	338.47
CALC. FROM CORRELATION	13.48	827.58	338.22

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	2.238	2.378
25.0	2.014	2.132
25.0	2.030	2.132
50.0	1.280	1.300
70.0	0.950	0.922
25.0	1.986	2.132

NUMBER OF DATA POINTS 6  
 MEAN ABSOLUTE ERROR 4.8  
 REFERENCES 18

NAME BENZOIC ACID, BENZYL ESTER (BENZYL BENZOATE)

FORMULA C14 H12 O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	19.24	1131.83	395.56
CALC. FROM CORRELATION	19.21	1133.17	395.31

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	8.504	8.590
5.0	19.280	16.117
15.0	12.120	11.639
25.0	8.292	8.590
40.0	5.243	5.649
60.0	3.259	3.426
80.0	2.245	2.198
90.0	1.912	1.794
100.0	1.655	1.480
25.0	8.454	8.590

NUMBER OF DATA POINTS 10  
 MEAN ABSOLUTE ERROR 5.8  
 REFERENCES 18

NAME 2-PROPANONE (ACETONE)  
 FORMULA C3 H6 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	6.02	367.25	209.68
CALC. FROM CORRELATION	5.90	348.68	206.86

TEMP. (DEG.C)	EXP.	VISCOSITY (CP)	CALC.
10.0	0.358		0.351
20.0	0.324		0.319
30.0	0.292		0.291
40.0	0.268		0.268
50.0	0.245		0.247
60.0	0.226		0.230
-80.0	1.487		1.317
-59.6	0.932		0.885
-42.5	0.695		0.670
-30.0	0.575		0.560
-20.0	0.510		0.492
-13.0	0.470		0.451
-10.0	0.450		0.436
0.0	0.399		0.390
15.0	0.337		0.335
25.0	0.316		0.305
30.0	0.295		0.291
41.0	0.280		0.266

NUMBER OF DATA POINTS	18
MEAN ABSOLUTE ERROR	2.9
REFERENCES	19, 20

NAME 2-BUTANONE (METHYL ETHYL KETONE)  
 FORMULA C4 H8 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.00	423.84	231.67
CALC. FROM CORRELATION	6.78	406.32	226.89

TEMP. (DEG.C)	EXP.	VISCOSITY (CP)	CALC.
0.3	0.536		0.495
7.0	0.492		0.456
14.1	0.452		0.420
21.3	0.417		0.388
28.4	0.386		0.360
35.4	0.358		0.336
42.5	0.334		0.314
48.7	0.314		0.296
55.9	0.294		0.278
63.7	0.275		0.260
70.3	0.259		0.247
76.3	0.246		0.236

NUMBER OF DATA POINTS	12
MEAN ABSOLUTE ERROR	6.1
REFERENCES	18

NAME 2-PENTANONE (METHYL PROPYL KETONE)

A 108

FORMULA C5 H10 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.54	437.94	243.03
CALC. FROM CORRELATION	7.65	461.19	245.28

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	0.640	0.639
9.4	0.569	0.565
18.3	0.511	0.504
27.8	0.459	0.449
35.4	0.423	0.411
45.3	0.383	0.370
53.9	0.352	0.339
62.2	0.326	0.312
72.7	0.298	0.284
80.6	0.279	0.265
90.1	0.257	0.245
98.8	0.240	0.229

NUMBER OF DATA POINTS	12
MEAN ABSOLUTE ERROR	3.1
REFERENCES	18

NAME 3-PENTANONE (DIETHYL KETONE)

FORMULA C5 H10 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.28	425.53	237.63
CALC. FROM CORRELATION	7.65	461.19	245.28

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.5	0.591	0.639
9.1	0.530	0.567
18.7	0.474	0.501
27.1	0.432	0.453
36.2	0.393	0.408
44.7	0.362	0.372
53.4	0.333	0.340
62.4	0.307	0.312
72.2	0.283	0.285
81.5	0.262	0.263
15.0	0.493	0.525
98.8	0.227	0.229

NUMBER OF DATA POINTS	12
MEAN ABSOLUTE ERROR	3.7
REFERENCES	18

NAME 2-HEXANONE (METHYL N-BUTYL KETONE)

FORMULA C6 H12 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	8.52	528.91	262.34
CALC. FROM CORRELATION	8.53	514.53	262.53

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.626	0.624
25.0	0.584	0.583

NUMBER OF DATA POINTS	2
MEAN ABSOLUTE ERROR	0.2
REFERENCES	18

NAME 2-HEPTANONE (METHYL AMYL KETONE)

A 109

FORMULA C7 H14 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 9.41 565.68 278.50

TEMP. (DEG.C) VISCOSITY (CP)  
EXP. CALC.  
25.0 0.766 0.735

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 4.1  
REFERENCES 18

NAME 3-HEPTANONE (ETHYL BUTYL KETONE)

FORMULA C7 H14 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 9.41 565.68 278.50

TEMP. (DEG.C) VISCOSITY (CP)  
EXP. CALC.  
20.0 0.839 0.791

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 5.7  
REFERENCES 18

NAME 4-HEPTANONE (DIPROPYL KETONE)

FORMULA C7 H14 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 9.41 565.68 278.50

TEMP. (DEG.C) VISCOSITY (CP)  
EXP. CALC.  
25.0 0.685 0.735

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 7.2  
REFERENCES 18

NAME 5-NONANONE (DIBUTYL KETONE)

FORMULA C9 H18 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 11.17 661.34 306.96

TEMP. (DEG.C) VISCOSITY (CP)  
EXP. CALC.  
20.0 1.282 1.263

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 1.5  
REFERENCES 18

NAME 4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE) A 110  
 FORMULA C6 H14 O  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
 CALC. FROM CORRELATION 8.29 509.13 257.96  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 20.0 0.580 0.579  
 NUMBER OF DATA POINTS 1  
 MEAN ABSOLUTE ERROR 0.1  
 REFERENCES 18

NAME PHENYLETHANONE (ACETOPHENONE)  
 FORMULA C8 H8 O  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 13.02 648.82 332.49  
 CALC. FROM CORRELATION 12.99 645.92 332.10  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 11.9 2.280 2.094  
 23.5 1.590 1.708  
 25.0 1.617 1.665  
 50.0 1.246 1.132  
 80.0 0.734 0.766  
 16.0 1.990 1.945  
 25.0 1.670 1.665  
 50.0 1.240 1.132  
 95.0 0.653 0.645  
 25.0 1.680 1.665  
 NUMBER OF DATA POINTS 10  
 MEAN ABSOLUTE ERROR 4.5  
 REFERENCES 18, 20

NAME BENZOPHENONE  
 FORMULA C13 H10 O  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 20.01 1253.51 401.92  
 CALC. FROM CORRELATION 20.08 1259.11 402.49  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 25.0 13.610 12.436  
 55.0 4.670 5.112  
 95.0 1.740 1.958  
 120.0 1.380 1.187  
 NUMBER OF DATA POINTS 4  
 MEAN ABSOLUTE ERROR 11.2  
 REFERENCES 18, 19, 20

NAME METHYL PROPYL ETHER

FORMULA C4 H10 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 5.39 353.90 194.55  
CALC. FROM CORRELATION 5.13 337.95 188.07

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.306	0.275
5.1	0.291	0.261
10.5	0.275	0.248
15.2	0.263	0.237
20.1	0.251	0.227
25.7	0.238	0.216
29.5	0.230	0.209
35.1	0.218	0.199

NUMBER OF DATA POINTS	8
MEAN ABSOLUTE ERROR	9.6
REFERENCES	18

NAME DIETHYL ETHER

FORMULA C4 H10 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 5.23 353.14 190.58  
CALC. FROM CORRELATION 5.13 337.95 188.07

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.289	0.276
10.0	0.260	0.249
20.0	0.236	0.227
30.0	0.215	0.208
40.0	0.197	0.192
50.0	0.181	0.177
60.0	0.166	0.165
70.0	0.152	0.154
-80.0	0.958	0.897
-60.0	0.537	0.615
-40.0	0.461	0.449
-20.0	0.362	0.345
0.0	0.284	0.276
17.0	0.240	0.233
20.0	0.233	0.227
25.0	0.222	0.217
40.0	0.197	0.192
60.0	0.166	0.165
80.0	0.140	0.145
100.0	0.118	0.128

NUMBER OF DATA POINTS	20
MEAN ABSOLUTE ERROR	3.3
REFERENCES	19, 20

NAME	ETHYL PROPYL ETHER		
FORMULA	C5 H12 O		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	6.18	399.87	213.39
CALC. FROM CORRELATION	6.34	403.59	217.06
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
0.3	0.395	0.413	
5.6	0.371	0.387	
10.6	0.351	0.365	
15.7	0.332	0.345	
20.3	0.316	0.328	
25.3	0.300	0.311	
30.1	0.286	0.296	
35.1	0.272	0.282	
40.0	0.259	0.269	
45.6	0.246	0.255	
50.3	0.236	0.245	
60.2	0.215	0.225	
NUMBER OF DATA POINTS		12	
MEAN ABSOLUTE ERROR		3.9	
REFERENCES		18	

NAME	ETHYL HEXYL ETHER		
FORMULA	C8 H18 O		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	10.24	590.07	292.47
CALC. FROM CORRELATION	9.97	575.96	288.04
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
25.0	0.929	0.855	
50.0	0.653	0.606	
NUMBER OF DATA POINTS		2	
MEAN ABSOLUTE ERROR		7.5	
REFERENCES		18	



NAME DIPROPYL ETHER

FORMULA C6 H14 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 7.10 445.84 233.82  
CALC. FROM CORRELATION 7.55 465.17 243.24

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.6	0.535	0.612
8.6	0.482	0.548
16.9	0.435	0.491
24.6	0.398	0.446
32.4	0.365	0.407
40.5	0.336	0.372
48.1	0.311	0.343
56.1	0.287	0.316
64.2	0.266	0.293
72.6	0.246	0.271
81.5	0.228	0.251
88.0	0.215	0.237

NUMBER OF DATA POINTS	12
MEAN ABSOLUTE ERROR	11.4
REFERENCES	18

NAME METHYL 2-METHYLPROPYL ETHER (ME. ISOBUTYL ET.)

FORMULA C5 H12 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 6.04 389.66 210.14  
CALC. FROM CORRELATION 5.84 385.89 205.44

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	0.379	0.341
6.9	0.352	0.316
14.5	0.324	0.290
21.3	0.302	0.270
28.9	0.280	0.251
36.0	0.262	0.234
42.5	0.245	0.221
49.8	0.230	0.207
55.2	0.219	0.198

NUMBER OF DATA POINTS	9
MEAN ABSOLUTE ERROR	10.2
REFERENCES	18

NAME           ETHYL PROPYL ETHER

FORMULA        C5 H12 O

CONSTANTS	NE	R	TO(DEG.K)
FROM EXPERIMENTAL DATA	6.18	399.87	213.39
CALC. FROM CORRELATION	6.34	403.59	217.06

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.395	0.413
5.6	0.371	0.387
10.6	0.351	0.365
15.7	0.332	0.345
20.3	0.316	0.328
25.3	0.300	0.311
30.1	0.286	0.296
35.1	0.272	0.282
40.0	0.259	0.269
45.6	0.246	0.255
50.3	0.236	0.245
60.2	0.215	0.225

NUMBER OF DATA POINTS	12
MEAN ABSOLUTE ERROR	3.9
REFERENCES	18

NAME           ETHYL HEXYL ETHER

FORMULA        C8 H18 O

CONSTANTS	NE	R	TO(DEG.K)
FROM EXPERIMENTAL DATA	10.24	590.07	292.47
CALC. FROM CORRELATION	9.97	575.96	288.04

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	0.929	0.855
50.0	0.653	0.606

NUMBER OF DATA POINTS	2
MEAN ABSOLUTE ERROR	7.5
REFERENCES	18

NAME ETHYL 2-METHYLPROPYL ETHER (ET. ISOBUTYL ET.)

FORMULA C6 H14 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 6.77 433.54 226.67  
CALC. FROM CORRELATION 7.05 449.15 232.75

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	0.480	0.516
7.3	0.439	0.469
15.1	0.400	0.425
21.7	0.370	0.392
28.1	0.345	0.364
35.4	0.320	0.336
41.8	0.299	0.314
49.0	0.279	0.291
56.0	0.261	0.272
63.2	0.244	0.254
70.7	0.228	0.238
77.5	0.214	0.224

NUMBER OF DATA POINTS 12  
MEAN ABSOLUTE ERROR 5.3  
REFERENCES 18

NAME DI(2-METHYLPROPYL) ETHER (DIISOBUTYL ETHER)

FORMULA C8 H18 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 8.97 541.12 270.67

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.749	0.702

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 6.2  
REFERENCES 18

NAME DI(2-PROPYL) ETHER (DIISOPROPYL ETHER)

FORMULA C6 H12 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 6.55 423.51 221.80

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.322	0.343

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 6.5  
REFERENCES 18

NAME METHYL PHENYL ETHER (ANISOLE)

FORMULA C7 H8 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 12.51 388.84 325.85  
CALC. FROM CORRELATION 11.50 656.83 311.82

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.780	1.987
10.0	1.510	1.634
20.0	1.320	1.362
30.0	1.210	1.149
40.0	1.120	0.979
50.0	1.040	0.844
60.0	0.970	0.733

NUMBER OF DATA POINTS 7  
 MEAN ABSOLUTE ERROR 12.0  
 REFERENCES 18, 20, 22

NAME ETHYL PHENYL ETHER (PHENETOLE)

FORMULA C8 H10 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 11.10 646.88 305.91  
CALC. FROM CORRELATION 11.50 656.83 311.82

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	1.261	1.362
25.0	1.158	1.249
45.0	0.833	0.908
0.0	1.860	1.987
9.9	1.530	1.637
20.2	1.240	1.357
29.6	1.030	1.156
40.0	0.870	0.979
60.0	0.680	0.733
80.0	0.550	0.567

NUMBER OF DATA POINTS 10  
 MEAN ABSOLUTE ERROR 8.4  
 REFERENCES 18

NAME PROPYL PHENYL ETHER

FORMULA C9 H12 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 11.50 656.83 311.82

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	1.588	1.362

NUMBER OF DATA POINTS 1  
 MEAN ABSOLUTE ERROR 14.2  
 REFERENCES 18

NAME METHYL BENZYL ETHER

FORMULA C8 H10 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	11.50	656.83	311.82

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
45.0	1.042	0.908

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 12.9  
REFERENCES 18

NAME 2-CRESYL METHYL ETHER

FORMULA C8 H10 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	11.50	711.68	311.82

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
45.0	0.858	0.901

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 5.0  
REFERENCES 18

NAME 3-CRESYL METHYL ETHER

FORMULA C8 H10 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	11.50	684.08	311.82

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
45.0	0.885	0.904

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 2.2  
REFERENCES 18

NAME 4-CRESYL METHYL ETHER

FORMULA C8 H10 O

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	11.50	639.26	311.82

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
45.0	0.814	0.910

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 11.8  
REFERENCES 18

NAME CHLOROMETHANE (METHYL CHLORIDE)

FORMULA C H3 CL

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	5.35	426.45	193.56
CALC. FROM CORRELATION	4.21	265.71	164.02

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.221	0.225
10.0	0.202	0.208
20.0	0.183	0.193
30.0	0.166	0.180
40.0	0.152	0.169
50.0	0.140	0.159
60.0	0.128	0.150
70.0	0.118	0.143
80.0	0.108	0.136
90.0	0.098	0.129
100.0	0.089	0.124
110.0	0.080	0.118
120.0	0.072	0.114

NUMBER OF DATA POINTS	14
MEAN ABSOLUTE ERROR	20.8
REFERENCES	19

NAME CHLOROETHANE (ETHYL CHLORIDE)

FORMULA C2 H5 CL

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	5.24	320.94	190.83
CALC. FROM CORRELATION	5.21	319.94	190.08

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
-20.0	0.392	0.381
-10.0	0.354	0.341
0.0	0.320	0.308
10.0	0.291	0.280
20.0	0.266	0.256
30.0	0.244	0.236
40.0	0.224	0.218

NUMBER OF DATA POINTS	7
MEAN ABSOLUTE ERROR	3.5
REFERENCES	18, 20

NAME 1-CHLOROPROPANE (PROPYL CHLORIDE)

A 118

FORMULA C3 H7 CL

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	6.25	374.77	215.00
CALC. FROM CORRELATION	6.21	371.41	214.08

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	0.432	0.419
5.2	0.410	0.397
10.1	0.389	0.377
14.6	0.370	0.359
20.7	0.349	0.338
25.8	0.334	0.322
30.4	0.318	0.308
35.4	0.303	0.294
40.8	0.288	0.281
44.7	0.278	0.271
0.0	0.436	0.422
20.0	0.352	0.340
40.0	0.291	0.283

NUMBER OF DATA POINTS	13
MEAN ABSOLUTE ERROR	3.0
REFERENCES	18, 20

NAME 2-CHLOROPROPANE (ISOPROPYL CHLORIDE)

FORMULA C3 H7 CL

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	6.13	306.25	212.24
CALC. FROM CORRELATION	5.97	359.31	208.51

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.400	0.390
6.7	0.371	0.364
11.0	0.354	0.348
16.5	0.334	0.329
22.5	0.314	0.310
28.2	0.296	0.294
33.0	0.282	0.282

NUMBER OF DATA POINTS	7
MEAN ABSOLUTE ERROR	1.4
REFERENCES	18

NAME 1-CHLORO, 2-METHYLPROPANE (ISOBUTYL CHLORIDE)

FORMULA C4 H9 CL

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.27	437.19	237.42
CALC. FROM CORRELATION	6.97	417.60	231.03

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.582	0.524
6.0	0.540	0.488
18.7	0.463	0.420
29.5	0.410	0.374
42.4	0.357	0.328
53.7	0.319	0.295
65.3	0.287	0.267

NUMBER OF DATA POINTS	7
MEAN ABSOLUTE ERROR	8.6
REFERENCES	18

NAME BROMOETHANE (ETHYL BROMIDE)  
 FORMULA C2 H5 BR

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	6.50	369.80	220.68
CALC. FROM CORRELATION	6.39	333.49	218.20

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.475	0.491
5.2	0.452	0.467
9.7	0.432	0.447
20.5	0.390	0.405
30.0	0.358	0.373
36.1	0.339	0.355
-100.0	2.890	2.498
-80.0	1.810	1.578
0.0	0.487	0.493
10.0	0.441	0.446
15.0	0.418	0.426
20.0	0.402	0.407
30.0	0.348	0.373

NUMBER OF DATA POINTS 13  
 MEAN ABSOLUTE ERROR 4.7  
 REFERENCES 18, 20

NAME 1-BROMOPROPANE (PROPYL BROMIDE)  
 FORMULA C3 H7 BR

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.43	395.31	240.76
CALC. FROM CORRELATION	7.39	387.64	239.93

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	0.641	0.633
7.9	0.588	0.580
13.7	0.552	0.544
19.2	0.520	0.513
25.4	0.490	0.481
31.9	0.458	0.452
38.6	0.430	0.424
45.6	0.403	0.398
51.0	0.384	0.380
57.4	0.363	0.361
62.0	0.349	0.348
67.9	0.332	0.332
0.0	0.651	0.636
20.0	0.524	0.509
40.0	0.433	0.419

NUMBER OF DATA POINTS 15  
 MEAN ABSOLUTE ERROR 1.4  
 REFERENCES 18, 20



NAME 1-BROMOBUTANE (N-BUTYL BROMIDE)

A 120

FORMULA C4 H9 BR

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 8.31 426.90 258.34  
CALC. FROM CORRELATION 8.39 438.99 259.87

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.820	0.828
20.0	0.648	0.643
40.0	0.520	0.516
60.0	0.433	0.425
80.0	0.368	0.358
100.0	0.311	0.307
15.0	0.626	0.683

NUMBER OF DATA POINTS 7  
MEAN ABSOLUTE ERROR 2.5  
REFERENCES 7, 20

NAME 1-BROMOPENTANE (N-AMYL BROMIDE)

FORMULA C5 H11 BR

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 9.26 464.92 275.87  
CALC. FROM CORRELATION 9.39 487.51 278.15

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.057	1.077
20.0	0.807	0.813
40.0	0.639	0.637
60.0	0.520	0.514
80.0	0.434	0.424
100.0	0.370	0.358

NUMBER OF DATA POINTS 6  
MEAN ABSOLUTE ERROR 1.6  
REFERENCES 7

NAME 1-BROMOHEXANE (N-HEXYL BROMIDE)

FORMULA C6 H13 BR

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 10.27 509.06 292.96  
CALC. FROM CORRELATION 10.39 533.18 294.89

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.362	1.393
20.0	1.009	1.025
40.0	0.779	0.784
60.0	0.621	0.620
80.0	0.512	0.503
100.0	0.432	0.418

NUMBER OF DATA POINTS 6  
MEAN ABSOLUTE ERROR 1.6  
REFERENCES 7

NAME 1-BROMOHEPTANE (N-HEPTYL BROMIDE)

A 121

FORMULA C7 H15 BR

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 11.44 560.71 310.95  
CALC. FROM CORRELATION 11.39 575.99 310.22

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.828	1.786
20.0	1.290	1.282
40.0	0.972	0.961
60.0	0.761	0.745
80.0	0.618	0.595
100.0	0.513	0.486

NUMBER OF DATA POINTS 6  
MEAN ABSOLUTE ERROR 2.5  
REFERENCES 7

NAME 1-BROMOOCTANE (N-OCTYL BROMIDE)

FORMULA C8 H17 BR

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 12.56 613.34 326.52  
CALC. FROM CORRELATION 12.39 615.90 324.25

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	2.415	2.266
20.0	1.634	1.590
40.0	1.190	1.168
60.0	0.918	0.890
80.0	0.732	0.699
100.0	0.601	0.564

NUMBER OF DATA POINTS 6  
MEAN ABSOLUTE ERROR 4.1  
REFERENCES 7

NAME 1-BROMONONANE (N-NONYL BROMIDE)

FORMULA C9 H19 BR

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 13.52 666.45 338.71  
CALC. FROM CORRELATION 13.39 652.90 337.12

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	3.155	2.841
20.0	2.045	1.952
40.0	1.330	1.407
60.0	1.083	1.054
80.0	0.852	0.817
100.0	0.692	0.650

NUMBER OF DATA POINTS 6  
MEAN ABSOLUTE ERROR 5.5  
REFERENCES 7

NAME 1-BROMODECANE (N-DECYL BROMIDE)  
 FORMULA C10 H21 BR

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	14.38	712.69	348.83
CALC. FROM CORRELATION	14.39	686.96	348.95

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	4.115	3.517
20.0	2.545	2.369
60.0	1.287	1.240
80.0	0.992	0.947
100.0	0.797	0.745

NUMBER OF DATA POINTS	5
MEAN ABSOLUTE ERROR	7.2
REFERENCES	7

NAME 1-BROMO, 2-METHYLPROPANE (ISOBUTYL BROMIDE)  
 FORMULA C4 H9 BR

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	8.35	451.38	259.11
CALC. FROM CORRELATION	8.15	435.85	255.24

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.820	0.769
7.4	0.745	0.701
16.1	0.669	0.630
23.7	0.611	0.576
32.2	0.556	0.525
40.3	0.510	0.482
48.4	0.470	0.445
56.1	0.435	0.413
72.6	0.373	0.357
87.9	0.323	0.316

NUMBER OF DATA POINTS	10
MEAN ABSOLUTE ERROR	5.2
REFERENCES	18

NAME IODOMETHANE (METHYL IODIDE)  
 FORMULA C H3 I

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	6.92	336.19	229.95
CALC. FROM CORRELATION	6.76	330.25	226.45

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.593	0.563
6.1	0.557	0.530
10.5	0.533	0.508
15.8	0.506	0.484
21.4	0.481	0.460
27.2	0.456	0.438
33.4	0.432	0.416
40.0	0.409	0.395
0.0	0.606	0.563
15.0	0.518	0.487
20.0	0.500	0.466
30.0	0.460	0.428
40.0	0.424	0.395

NUMBER OF DATA POINTS 13  
 MEAN ABSOLUTE ERROR 5.3  
 REFERENCES 18, 20

NAME IODOETHANE (ETHYL IODIDE)  
 FORMULA C2 H5 I

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.70	370.85	246.30
CALC. FROM CORRELATION	7.76	377.41	247.51

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.716	0.717
7.7	0.660	0.659
13.2	0.623	0.621
20.8	0.578	0.574
26.1	0.549	0.545
33.0	0.515	0.510
38.7	0.489	0.484
45.2	0.462	0.458
51.4	0.438	0.435
57.5	0.416	0.414
63.7	0.397	0.394
69.4	0.379	0.378
0.0	0.727	0.719
15.0	0.617	0.609
20.0	0.592	0.579
40.0	0.495	0.479
70.0	0.391	0.376

NUMBER OF DATA POINTS 17  
 MEAN ABSOLUTE ERROR 1.1  
 REFERENCES 18, 20

NAME 1- IODOPROPANE (N-PROPYL IODIDE)  
 FORMULA C3 H7 I

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	8.88	434.09	269.03
CALC. FROM CORRELATION	8.76	421.76	266.82

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.934	0.915
11.0	0.871	0.801
20.8	0.730	0.715
28.3	0.673	0.658
38.8	0.605	0.590
46.2	0.564	0.550
55.6	0.516	0.504
65.5	0.474	0.462
74.4	0.439	0.429
83.9	0.406	0.399
90.8	0.384	0.379
98.9	0.362	0.357

NUMBER OF DATA POINTS 12  
 MEAN ABSOLUTE ERROR 2.6  
 REFERENCES 18

NAME 2- IODOPROPANE (ISOPROPYL IODIDE)  
 FORMULA C3 H7 I

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	8.55	427.38	262.91
CALC. FROM CORRELATION	8.76	421.76	266.82

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	0.875	0.915
9.2	0.782	0.819
15.9	0.722	0.756
23.4	0.664	0.694
32.7	0.601	0.629
40.7	0.555	0.580
49.4	0.509	0.533
57.0	0.475	0.497
65.4	0.440	0.462
71.5	0.418	0.440
80.4	0.388	0.409
88.7	0.361	0.384

NUMBER OF DATA POINTS 12  
 MEAN ABSOLUTE ERROR 4.9  
 REFERENCES 18

NAME 1-IODO, 2-METHYLPROPANE (ISOBUTYL IODIDE)  
 FORMULA C4 H9 I

CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 9.62 472.80 282.13  
 CALC. FROM CORRELATION 9.52 462.51 280.41

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	1.154	1.099
11.2	0.978	0.948
22.4	0.844	0.823
33.8	0.739	0.720
44.6	0.658	0.640
54.6	0.593	0.577
77.3	0.480	0.468
86.8	0.442	0.432
97.8	0.403	0.396
109.2	0.368	0.363
116.1	0.349	0.346

NUMBER OF DATA POINTS 11  
 MEAN ABSOLUTE ERROR 2.5  
 REFERENCES 18

NAME IODOBENZENE  
 FORMULA C6 H5 I

CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 12.92 565.72 331.21  
 CALC. FROM CORRELATION 12.36 589.18 323.85

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
4.6	2.207	2.004
17.4	1.780	1.616
27.5	1.504	1.381
36.8	1.316	1.206
48.1	1.135	1.034
58.1	1.005	0.911
68.2	0.902	0.807
80.6	0.792	0.702
98.0	0.673	0.586
107.5	0.623	0.535
117.7	0.549	0.488
126.9	0.529	0.450
137.6	0.448	0.412
15.0	1.740	1.680

NUMBER OF DATA POINTS 14  
 MEAN ABSOLUTE ERROR 10.0  
 REFERENCES 18, 20

NAME           BROMOBENZENE  
 FORMULA       C6 H5 BR  
 CONSTANTS                   NE           B           TO(DEG.K)  
 FROM EXPERIMENTAL DATA   10.87    508.18   302.42  
 CALC. FROM CORRELATION   10.99    571.59   304.25

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.1	1.573	1.633
10.1	1.332	1.378
18.2	1.171	1.211
28.3	1.023	1.041
43.6	0.842	0.843
61.4	0.694	0.676
71.2	0.626	0.604
80.7	0.579	0.545
91.0	0.526	0.491
102.2	0.485	0.441
111.7	0.445	0.404
121.7	0.417	0.371
132.3	0.373	0.340
142.3	0.351	0.314
15.0	1.196	1.273
30.0	0.985	1.016

NUMBER OF DATA POINTS           16  
 MEAN ABSOLUTE ERROR            5.6  
 REFERENCES                       18, 20

NAME           CHLOROBENZENE  
 FORMULA       C6 H5 CL  
 CONSTANTS                   NE           B           TO(DEG.K)  
 FROM EXPERIMENTAL DATA   9.28    477.76   276.22  
 CALC. FROM CORRELATION   9.81    529.58   285.36

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.053	1.210
4.7	0.988	1.122
15.9	0.848	0.947
20.1	0.800	0.891
30.2	0.704	0.776
40.2	0.629	0.683
49.9	0.570	0.607
60.0	0.513	0.542
72.1	0.460	0.476
80.4	0.428	0.439
96.2	0.362	0.378
107.8	0.344	0.342
119.6	0.307	0.311
15.0	0.900	0.959
20.0	0.799	0.893
40.0	0.631	0.684
80.0	0.431	0.440
100.0	0.367	0.366

NUMBER OF DATA POINTS           18  
 MEAN ABSOLUTE ERROR            6.9  
 REFERENCES                       18, 20

NAME FLUOROBENZENE

FORMULA C6 H5 F

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	8.03	452.06	252.89
CALC. FROM CORRELATION	8.03	452.06	252.89

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
9.3	0.647	0.650
15.9	0.615	0.597
19.9	0.577	0.569
29.1	0.514	0.511
33.2	0.495	0.488
38.1	0.468	0.462
44.0	0.438	0.434
50.2	0.412	0.408
60.5	0.351	0.369
71.9	0.334	0.333
80.9	0.305	0.308
20.0	0.598	0.568
40.0	0.478	0.453
60.0	0.389	0.371
80.0	0.329	0.311
100.0	0.275	0.265

NUMBER OF DATA POINTS	16
MEAN ABSOLUTE ERROR	2.5
REFERENCES	18, 20

NAME 1,2-DIFLUOROETHANE (ETHYLENE FLUORIDE)

FORMULA C2 H4 F2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	5.07	319.27	186.56
CALC. FROM CORRELATION	4.86	324.06	181.20

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.289	0.250
20.0	0.251	0.207
30.0	0.227	0.191
40.0	0.207	0.176
50.0	0.193	0.164
60.0	0.180	0.153

NUMBER OF DATA POINTS	6
MEAN ABSOLUTE ERROR	15.3
REFERENCES	22



NAME            DICHLOROMETHANE (METHYLENE CHLORIDE)

FORMULA        C H2 CL2

CONSTANTS                            NE            B            TO(DEG.K)

FROM EXPERIMENTAL DATA            6.70        359.55        225.13

CALC. FROM CORRELATION            6.41        354.99        218.65

TEMP.                                VISCOSITY

(DEG.C)                                (CP)

	EXP.	CALC.
0.5	0.532	0.472
5.7	0.502	0.446
10.2	0.479	0.426
15.5	0.454	0.404
20.5	0.433	0.385
25.6	0.413	0.367
31.0	0.393	0.350
37.5	0.370	0.330
15.0	0.449	0.406
30.0	0.393	0.353

NUMBER OF DATA POINTS                            10

MEAN ABSOLUTE ERROR                             10.8

REFERENCES    18

NAME            TRICHLOROMETHANE (CHLOROFORM)

FORMULA        C H3 CL

CONSTANTS                            NE            B            TO(DEG.K)

FROM EXPERIMENTAL DATA            7.71        394.81        246.50

CALC. FROM CORRELATION            8.16        437.40        255.44

TEMP.                                VISCOSITY

(DEG.C)                                (CP)

	EXP.	CALC.
0.0	0.700	0.774
10.0	0.625	0.680
20.0	0.563	0.602
30.0	0.502	0.538
40.0	0.465	0.483
50.0	0.425	0.438
60.0	0.389	0.399
-13.0	0.855	0.931
0.0	0.700	0.774
8.1	0.643	0.696
15.0	0.596	0.639
20.0	0.580	0.602
25.0	0.542	0.568
30.0	0.514	0.538

NUMBER OF DATA POINTS                            14

MEAN ABSOLUTE ERROR                             6.5

REFERENCES    19, 20

NAME TETRACHLOROMETHANE (CARBON TETRACHLORIDE)

FORMULA C CL4

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	10.14	540.15	290.84
CALC. FROM CORRELATION	9.91	511.17	287.04

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.369	1.232
10.0	1.152	1.058
20.0	0.986	0.918
30.0	0.856	0.804
40.0	0.750	0.710
50.0	0.664	0.632
60.0	0.593	0.567
70.0	0.553	0.511
80.0	0.483	0.464
90.0	0.440	0.423
100.0	0.404	0.388
0.0	1.329	1.232
15.0	1.038	0.984
20.0	0.969	0.918
30.0	0.843	0.804
40.0	0.739	0.710
50.0	0.651	0.632
60.0	0.585	0.567
70.0	0.524	0.511
80.0	0.468	0.464
90.0	0.426	0.423
100.0	0.384	0.388

NUMBER OF DATA POINTS	22
MEAN ABSOLUTE ERROR	4.6
REFERENCES	19, 20

NAME 1,1-DICHLOROETHANE (ETHYLIDENE CHLORIDE)

FORMULA C2 H4 CL2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	7.35	412.27	239.10
CALC. FROM CORRELATION	7.31	398.74	238.26

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
7.1	0.569	0.562
11.2	0.541	0.535
15.3	0.516	0.511
19.3	0.493	0.490
23.2	0.474	0.470
27.8	0.451	0.448
31.5	0.434	0.432
35.6	0.416	0.415
40.2	0.398	0.397
43.7	0.384	0.384
47.9	0.369	0.370
54.5	0.348	0.349

NUMBER OF DATA POINTS	12
MEAN ABSOLUTE ERROR	0.6
REFERENCES	18

NAME 1,2-DICHLOROETHANE (ETHYLENE CHLORIDE)  
 FORMULA C2 H4 CL2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	9.38	473.95	277.98
CALC. FROM CORRELATION	9.38	516.12	277.98

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	1.123	1.078
10.0	0.962	0.925
20.0	0.832	0.801
30.0	0.728	0.701
40.0	0.644	0.619
50.0	0.568	0.550
60.0	0.519	0.493
80.0	0.469	0.402
100.0	0.417	0.336
0.0	1.077	1.078
15.0	0.887	0.860
19.4	0.800	0.808
40.0	0.652	0.619
50.0	0.565	0.550
70.0	0.479	0.444
0.3	1.121	1.073
7.2	1.002	0.964
14.7	0.896	0.863
21.8	0.813	0.781
28.8	0.742	0.712
36.9	0.669	0.643
43.9	0.616	0.590
51.7	0.567	0.539
58.5	0.524	0.500
65.5	0.491	0.465
72.9	0.456	0.431
81.1	0.422	0.398

NUMBER OF DATA POINTS	27
MEAN ABSOLUTE ERROR	5.0
REFERENCES	18, 19, 20

NAME 1,1,2,2-TETRACHLORETHANE  
 FORMULA C2 H2 CL4

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	12.88	647.05	330.69
CALC. FROM CORRELATION	12.82	614.39	329.92

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	2.656	2.438
10.0	2.147	2.030
15.0	1.952	1.862
25.0	1.637	1.579
35.0	1.389	1.354
50.0	1.132	1.094
75.0	0.810	0.799
80.0	0.760	0.754

NUMBER OF DATA POINTS	8
MEAN ABSOLUTE ERROR	3.7
REFERENCES	18

NAME 1,5-DICHLOROPENTANE  
 FORMULA C5 H10 CL2

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	11.42	594.17	310.66

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	1.600	1.203

NUMBER OF DATA POINTS 1  
 MEAN ABSOLUTE ERROR 24.8  
 REFERENCES 18

NAME DIBROMOMETHANE (METHYLENE BROMIDE)  
 FORMULA C H2 BR2

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	10.37	428.91	294.57
CALC. FROM CORRELATION	10.28	435.93	293.12

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
15.0	1.090	1.061
30.0	0.920	0.893

NUMBER OF DATA POINTS 2  
 MEAN ABSOLUTE ERROR 2.8  
 REFERENCES 20

NAME TRIBROMOMETHANE (BROMOFORM)  
 FORMULA C H BR3

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	14.57	519.07	350.97
CALC. FROM CORRELATION	14.67	516.79	352.09

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
10.0	2.217	2.277
15.0	2.152	2.117
25.0	1.890	1.843
30.0	1.741	1.725
76.5	1.009	1.024
6.4	2.381	2.403

NUMBER OF DATA POINTS 6  
 MEAN ABSOLUTE ERROR 1.7  
 REFERENCES 18, 20

NAME 1,2-DIBROMOETHANE (ETHYLENE BROMIDE)

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FORMULA C2 H4 BR2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.07	564.39	333.12
CALC. FROM CORRELATION	12.38	557.78	324.12

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	2.422	2.094
10.0	2.028	1.774
20.0	1.714	1.520
30.0	1.469	1.315
40.0	1.279	1.149
50.0	1.122	1.012
60.0	0.995	0.898
80.0	0.804	0.722
100.0	0.667	0.594
120.0	0.562	0.499
0.0	2.438	2.094
20.0	1.721	1.520
40.0	1.286	1.149
67.3	0.922	0.827
70.0	0.903	0.803
82.0	0.750	0.707
99.0	0.648	0.600
9.5	2.053	1.788
20.6	1.698	1.505
31.2	1.445	1.293
41.6	1.252	1.124
51.8	1.099	0.990
62.9	0.967	0.869
73.5	0.862	0.773
96.0	0.762	0.617
95.8	0.694	0.618
105.7	0.634	0.564
117.0	0.577	0.511
126.7	0.532	0.472

NUMBER OF DATA POINTS	29
MEAN ABSOLUTE ERROR	11.0
REFERENCES	18, 19, 20

NAME 1,2 DIBROMOPROPANE

FORMULA C3 H6 BR2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	12.74	560.04	328.88
CALC. FROM CORRELATION	13.38	594.81	337.00

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.4	2.285	2.568
12.9	1.816	2.062
25.3	1.494	1.691
38.0	1.247	1.401
50.1	1.072	1.189
63.2	0.918	1.008
76.5	0.797	0.864
89.1	0.704	0.753
101.2	0.628	0.667
113.7	0.565	0.592
128.0	0.501	0.522
136.7	0.468	0.486

NUMBER OF DATA POINTS	12
MEAN ABSOLUTE ERROR	8.9
REFERENCES	18

NAME 1,2-DIBROMO-2-METHYLPROPANE  
 FORMULA C4 H8 BR2  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 14.08 650.18 345.38  
 CALC. FROM CORRELATION 14.14 629.92 346.08  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 0.4 3.290 3.038  
 13.7 2.456 2.377  
 26.9 1.916 1.901  
 40.8 1.528 1.535  
 53.2 1.274 1.289  
 66.9 1.065 1.077  
 80.6 0.903 0.913  
 93.6 0.781 0.789  
 107.1 0.680 0.686  
 121.7 0.593 0.596  
 133.8 0.532 0.534  
 142.4 0.494 0.496  
 NUMBER OF DATA POINTS 12  
 MEAN ABSOLUTE ERROR 1.6  
 REFERENCES 18

NAME 3-CHLOROPROPENE (ALLYL CHLORIDE)  
 FORMULA C3 H5 CL  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 6.06 368.27 210.61  
 CALC. FROM CORRELATION 5.94 344.97 207.80  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 0.5 0.403 0.398  
 6.0 0.380 0.376  
 11.2 0.360 0.357  
 16.7 0.341 0.339  
 21.9 0.323 0.323  
 28.3 0.304 0.305  
 34.0 0.288 0.290  
 38.4 0.277 0.280  
 42.1 0.268 0.272  
 15.0 0.347 0.344  
 30.0 0.300 0.300  
 NUMBER OF DATA POINTS 11  
 MEAN ABSOLUTE ERROR 0.7  
 REFERENCES 18

NAME 3-BROMOPROPENE (ALLYL BROMIDE)

FORMULA C3 H5 BR

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 7.26 389.59 237.21  
CALC. FROM CORRELATION 7.12 366.87 234.24TEMP.  
(DEG.C)VISCOSITY  
(CP)

	EXP.	CALC.
0.3	0.616	0.596
6.6	0.573	0.556
12.4	0.537	0.523
18.3	0.504	0.492
24.7	0.472	0.463
30.8	0.444	0.437
37.2	0.420	0.413
42.8	0.398	0.393
47.9	0.380	0.377
54.5	0.358	0.358
68.7	0.319	0.321

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES11  
1.7  
18

NAME 3-IODOPROPENE (ALLYL IODIDE)

FORMULA C3 H5 I

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 8.75 425.52 266.64  
CALC. FROM CORRELATION 8.49 411.05 261.77TEMP.  
(DEG.C)VISCOSITY  
(CP)

	EXP.	CALC.
0.3	0.926	0.857
9.3	0.825	0.767
16.8	0.754	0.704
26.1	0.679	0.636
35.8	0.614	0.576
44.2	0.565	0.531
55.2	0.510	0.481
63.4	0.476	0.448
71.1	0.443	0.420
81.3	0.410	0.389
91.9	0.375	0.360
98.4	0.358	0.343

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES12  
5.8  
18

NAME	METHYLAMINE		
FORMULA	C H5 N		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	4.91	389.31	182.48
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
0.0	0.236	0.196	
NUMBER OF DATA POINTS	1		
MEAN ABSOLUTE ERROR	17.0		
REFERENCES	18		

NAME	ETHYLAMINE		
FORMULA	C2 H7 N		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	6.23	469.30	214.55
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
-33.5	0.436	0.590	
NUMBER OF DATA POINTS	1		
MEAN ABSOLUTE ERROR	35.3		
REFERENCES	18		

NAME	PROPYLAMINE		
FORMULA	C3 H9 N		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	7.56	545.01	243.44
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
25.0	0.353	0.388	
NUMBER OF DATA POINTS	1		
MEAN ABSOLUTE ERROR	10.0		
REFERENCES	18		



NAME BUTYLAMINE  
 FORMULA C4 H11 N

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	8.88	615.24	269.03

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	0.681	0.598

NUMBER OF DATA POINTS	1
MEAN ABSOLUTE ERROR	12.2
REFERENCES	18

NAME DIETHYL AMINE  
 FORMULA C4 H11 N

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	6.89	473.89	229.29
CALC. FROM CORRELATION	7.23	526.69	236.58

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	0.346	0.347
35.0	0.279	0.304
25.0	0.367	0.347
-33.5	0.823	0.936

NUMBER OF DATA POINTS	4
MEAN ABSOLUTE ERROR	7.1
REFERENCES	18

NAME ETHYL PROPYL AMINE  
 FORMULA C5 H13 N

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	0.0	0.0	0.0
CALC. FROM CORRELATION	8.69	605.44	265.53

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	0.903	0.563

NUMBER OF DATA POINTS	1
MEAN ABSOLUTE ERROR	37.7
REFERENCES	18

NAME (2-METHYLPROPYL) AMINE (ISOBUTYL AMINE)

FORMULA C4 H11 N

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CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA  
CALC. FROM CORRELATION

0.0 0.0 0.0  
8.38 598.15 259.68

TEMP.  
(DEG.C)

VISCOSITY  
(CP)  
EXP. CALC.  
25.0 0.553 0.504

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES

1  
8.8  
18

NAME (2-METHYLBUTYL) AMINE (ISOAMYL AMINE)

FORMULA C5 H13 (

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA  
CALC. FROM CORRELATION

0.0 0.0 0.0  
9.71 665.81 283.67

TEMP.  
(DEG.C)

VISCOSITY  
(CP)  
EXP. CALC.  
25.0 0.723 0.769

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES

1  
6.4  
18

NAME ANILINE

FORMULA C6 H7 N

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA  
CALC. FROM CORRELATION

15.14 1074.61 357.21  
15.04 876.83 356.13

TEMP.  
(DEG.C)

VISCOSITY  
(CP)  
EXP. CALC.

0.0	10.200	5.596
5.0	8.060	4.900
10.0	6.500	4.310
15.0	5.310	3.809
20.0	4.400	3.380
25.0	3.710	3.011
30.0	3.160	2.693
35.0	2.710	2.417
40.0	2.370	2.177
50.0	1.850	1.783
60.0	1.510	1.478
70.0	1.270	1.239
80.0	1.090	1.049
90.0	0.935	0.896
0.0	10.240	5.596
2.5	9.150	5.233
10.3	6.440	4.272
15.3	5.200	3.776
16.3	5.010	3.689
17.4	4.840	3.596
31.8	2.970	2.591
49.0	1.840	1.818
61.3	1.480	1.445
80.3	1.090	1.043
100.4	0.829	0.768
119.9	0.660	0.587
120.0	0.653	0.586

NUMBER OF DATA POINTS  
MEAN ABSOLUTE ERROR  
REFERENCES

27  
18.1  
18, 20

NAME 2-AMINOTOLUENE (O-TOLUIDINE)

FORMULA C7 H9 N

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	15.07	1085.11	356.46
CALC. FROM CORRELATION	15.04	931.67	356.13

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	10.105	6.177
10.0	6.428	4.723
20.0	4.392	3.647
30.0	3.194	2.865
40.0	2.436	2.286
50.0	1.919	1.849
60.0	1.578	1.515
70.0	1.302	1.256
80.0	1.109	1.052
90.0	0.952	0.890
100.0	0.831	0.760

NUMBER OF DATA POINTS 11  
 MEAN ABSOLUTE ERROR 11.8  
 REFERENCES 18

NAME 3-AMINOTOLUENE (M-TOLUIDINE)

FORMULA C7 H9 N

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	14.85	928.12	354.07
CALC. FROM CORRELATION	15.04	904.08	356.13

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	3.310	3.116
130.0	0.500	0.506
55.0	1.510	1.646

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 5.3  
 REFERENCES 18

NAME 4-AMINOTOLUENE (P-TOLUIDINE)

FORMULA C7 H9 N

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	15.03	738.90	356.02
CALC. FROM CORRELATION	15.04	859.26	356.13

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
55.0	1.560	1.606
130.0	0.520	0.523
39.9	2.080	2.148
59.9	1.390	1.469
79.8	1.010	1.051
99.9	0.770	0.777
125.0	0.600	0.556
150.0	0.490	0.415
175.0	0.420	0.320

NUMBER OF DATA POINTS 9  
 MEAN ABSOLUTE ERROR 7.1  
 REFERENCES 18

NAME 2-CHLOROANILINE

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FORMULA C6 H6 CL N

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 15.04 914.64 356.13

TEMP. (DEG.C) VISCOSITY (CP)  
EXP. CALC.  
55.0 1.650 1.655

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 0.3  
REFERENCES 18

NAME 3-CHLORO ANILINE

FORMULA C6 H6 CL N

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 15.11 973.87 356.89  
CALC. FROM CORRELATION 15.04 887.04 356.13

TEMP. (DEG.C) VISCOSITY (CP)  
EXP. CALC.  
55.0 1.760 1.630  
25.0 3.500 3.050

NUMBER OF DATA POINTS 2  
MEAN ABSOLUTE ERROR 10.1  
REFERENCES 18

NAME 4-CHLOROANILINE

FORMULA C6 H6 CL N

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 15.04 842.23 356.13

TEMP. (DEG.C) VISCOSITY (CP)  
EXP. CALC.  
55.0 1.960 1.591

NUMBER OF DATA POINTS 1  
MEAN ABSOLUTE ERROR 18.8  
REFERENCES 18

NAME BENZYL AMINE

FORMULA C7 H9 N

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA	12.70	636.49	328.36
CALC. FROM CORRELATION	12.70	790.47	328.36

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	1.590	1.753
130.0	0.442	0.358

NUMBER OF DATA POINTS	2
MEAN ABSOLUTE ERROR	14.7
REFERENCES	18

NAME N-METHYLANILINE

FORMULA C7 H9 N

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA	13.04	915.12	332.74
CALC. FROM CORRELATION	12.22	770.77	321.95

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	4.265	2.658
10.0	3.060	2.128
20.0	2.300	1.718
30.0	1.810	1.407
40.0	1.466	1.167
50.0	1.215	0.980
70.0	0.886	0.711

NUMBER OF DATA POINTS	7
MEAN ABSOLUTE ERROR	25.0
REFERENCES	18

NAME N-ETHYLANILINE

FORMULA C8 H11 N

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA	13.28	843.72	335.76
CALC. FROM CORRELATION	13.68	828.60	340.65

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	4.123	3.963
10.0	2.980	3.118
20.0	2.250	2.478
40.0	1.430	1.635
60.0	1.010	1.134
80.0	0.760	0.820
90.0	0.670	0.707
100.0	0.603	0.614

NUMBER OF DATA POINTS	8
MEAN ABSOLUTE ERROR	7.6
REFERENCES	18

NAME           DIPHENYLAMINE  
 FORMULA       C12 H11 N

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	20.23	1162.20	403.72
CALC. FROM CORRELATION	20.12	1008.36	402.82

TEMP. (DEG.C)

	EXP.	VISCOSITY (CP)	CALC.
55.0	4.660		3.711
61.0	4.180		3.269
81.0	2.530		2.208
130.0	1.040		0.995

NUMBER OF DATA POINTS           4  
 MEAN ABSOLUTE ERROR           14.8  
 REFERENCES                       18

NAME           BENZYL-PHENYLAMINE  
 FORMULA       C13 H13 N

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	21.38	1150.84	413.11
CALC. FROM CORRELATION	21.58	1041.18	414.74

TEMP. (DEG.C)

	EXP.	VISCOSITY (CP)	CALC.
55.0	5.390		4.596
130.0	1.200		1.181

NUMBER OF DATA POINTS           2  
 MEAN ABSOLUTE ERROR           8.2  
 REFERENCES                       18

NAME           N-METHYL-DIPHENYLAMINE  
 FORMULA       C13 H13 N

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	17.86	1054.41	383.67
CALC. FROM CORRELATION	17.47	949.26	380.15

TEMP. (DEG.C)

	EXP.	VISCOSITY (CP)	CALC.
9.8	11.000		7.206
20.1	7.250		5.494
30.0	5.150		4.307
40.0	3.850		3.421
60.0	2.490		2.250
80.0	1.740		1.552
130.0	0.810		0.720

NUMBER OF DATA POINTS           7  
 MEAN ABSOLUTE ERROR           16.8  
 REFERENCES                       18

NAME N,N-DIETHYLANILINE

FORMULA C10 H15 N

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 13.26 812.59 335.51  
CALC. FROM CORRELATION 13.87 835.67 342.92

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.5	3.840	4.137
10.0	2.850	3.268
20.0	2.180	2.592
40.0	1.420	1.704
60.0	1.020	1.179
80.0	0.770	0.850
98.0	0.630	0.652

NUMBER OF DATA POINTS	7
MEAN ABSOLUTE ERROR	13.0
REFERENCES	18

NAME N,N-DIMETHYLANILINE

FORMULA C8 H11 N

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 12.08 553.02 320.03  
CALC. FROM CORRELATION 11.87 755.98 317.11

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
10.0	1.690	1.931
20.0	1.410	1.566
25.0	1.285	1.417
30.0	2.170	1.287
40.0	1.040	1.072
50.0	0.910	0.902
0.0	2.020	2.418
10.0	1.650	1.931
20.0	1.380	1.566
30.0	1.170	1.287
40.0	1.020	1.072
60.0	0.790	0.768
80.0	0.650	0.571
126.0	0.461	0.324
177.0	0.341	0.197

NUMBER OF DATA POINTS	15
MEAN ABSOLUTE ERROR	15.5
REFERENCES	18, 20

NAME 3-AMINOPROPENE (ALLYL AMINE)

FORMULA C3 H7 N

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 0.0 0.0 0.0  
CALC. FROM CORRELATION 7.28 523.92 237.63

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	0.374	0.357

NUMBER OF DATA POINTS	1
MEAN ABSOLUTE ERROR	4.6
REFERENCES	18

NAME NITROMETHANE

FORMULA C H3 N O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA	8.46	452.50	261.21
CALC. FROM CORRELATION	8.57	442.82	263.28

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	0.843	0.869
25.0	0.632	0.636
40.0	0.526	0.540
55.0	0.450	0.465
70.0	0.392	0.406
85.0	0.343	0.358

NUMBER OF DATA POINTS	6
MEAN ABSOLUTE ERROR	3.0
REFERENCES	18

NAME NITROBENZENE

FORMULA C6 H5 N O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA	13.69	642.85	340.77
CALC. FROM CORRELATION	13.00	728.79	332.23

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.3	3.830	2.961
10.0	2.509	2.400
20.0	2.013	1.960
30.0	1.682	1.623
40.0	1.438	1.360
50.0	1.251	1.152
60.0	1.094	0.986
70.0	0.970	0.851
90.0	0.779	0.650
100.5	0.704	0.571
2.9	2.910	2.792
5.7	2.710	2.630
5.9	2.710	2.616
9.9	2.480	2.404
14.9	2.240	2.168
20.0	2.030	1.960
3.0	2.907	2.789
5.0	2.771	2.669
10.0	2.483	2.400
15.0	2.239	2.165
20.0	2.034	1.960
55.0	1.056	1.065
60.0	0.982	0.986
70.0	0.851	0.851
80.0	0.742	0.741
90.0	0.650	0.650
100.0	0.573	0.575
100.0	0.718	0.575
125.0	0.573	0.433
150.0	0.471	0.338
175.0	0.397	0.271
200.0	0.339	0.222
207.6	0.324	0.210

NUMBER OF DATA POINTS	33
MEAN ABSOLUTE ERROR	9.6
REFERENCES	18, 19, 20



NAME O-NITROTOLUENE  
 FORMULA C7 H7 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.92	759.86	343.51
CALC. FROM CORRELATION	13.67	825.13	340.53

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
0.0	3.830	3.959
20.0	2.370	2.463
40.0	1.630	1.628
60.0	1.210	1.131

NUMBER OF DATA POINTS 4  
 MEAN ABSOLUTE ERROR 3.5  
 REFERENCES 20

NAME M-NITROTOLUENE  
 FORMULA C7 H7 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.28	870.01	335.76
CALC. FROM CORRELATION	13.27	772.92	335.63

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
70.0	0.836	0.890
80.0	0.732	0.769
90.0	0.641	0.669
100.0	0.564	0.587
20.0	2.330	2.156
40.0	1.600	1.463
60.0	1.180	1.040

NUMBER OF DATA POINTS 7  
 MEAN ABSOLUTE ERROR 6.8  
 REFERENCES 19, 20

NAME 2-NITRO-2-BUTENE  
 FORMULA C4 H7 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	9.82	478.08	285.53
CALC. FROM CORRELATION	9.52	506.81	280.41

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	0.812	0.732
40.0	0.719	0.647
60.0	0.585	0.517

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 10.5  
 REFERENCES 24

NAME 2-NITRO-2-PENTENE  
 FORMULA C5 H9 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	10.17	498.20	291.34
CALC. FROM CORRELATION	10.48	567.43	296.33

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	0.871	0.905
40.0	0.768	0.789
60.0	0.619	0.614

NUMBER OF DATA POINTS	3
MEAN ABSOLUTE ERROR	2.5
REFERENCES	24

NAME 3-NITRO-2-PENTENE  
 FORMULA C5 H9 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	10.47	523.53	296.17
CALC. FROM CORRELATION	10.20	494.01	291.82

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	0.925	0.864
40.0	0.810	0.767
60.0	0.646	0.617

NUMBER OF DATA POINTS	3
MEAN ABSOLUTE ERROR	5.5
REFERENCES	24

NAME 2-NITRO-2-HEXENE  
 FORMULA C6 H11 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	11.51	558.55	311.97
CALC. FROM CORRELATION	11.44	625.41	310.95

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	1.144	1.126
40.0	0.993	0.968
60.0	0.780	0.734

NUMBER OF DATA POINTS	3
MEAN ABSOLUTE ERROR	3.3
REFERENCES	24

NAME 3-NITRO-2-HEXENE

FORMULA C6 H11 N O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 11.26 571.84 308.30  
CALC. FROM CORRELATION 11.16 559.29 306.81

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	1.091	1.052
40.0	0.943	0.918
60.0	0.737	0.718

NUMBER OF DATA POINTS	3
MEAN ABSOLUTE ERROR	2.9
REFERENCES	24

NAME 3-NITRO-3-HEXENE

FORMULA C6 H11 N O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 10.83 535.10 301.80  
CALC. FROM CORRELATION 11.16 559.29 306.81

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	0.996	1.052
40.0	0.869	0.918
60.0	0.690	0.718

NUMBER OF DATA POINTS	3
MEAN ABSOLUTE ERROR	5.1
REFERENCES	24

NAME 2-NITRO-2-HEPTENE

FORMULA C7 H13 N O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 12.28 595.27 322.77  
CALC. FROM CORRELATION 12.39 680.15 324.25

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	1.336	1.399
40.0	1.147	1.187
60.0	0.888	0.879

NUMBER OF DATA POINTS	3
MEAN ABSOLUTE ERROR	3.1
REFERENCES	24

NAME            3-NITRO-2-HEPTENE  
 FORMULA        C7 H13 N O2  
 CONSTANTS                    NE            B            TO(DEG.K)  
 FROM EXPERIMENTAL DATA    12.26      634.53      322.50  
 CALC. FROM CORRELATION    12.11      621.23      320.44  
 TEMP.                            VISCOSITY  
 (DEG.C)                        (CP)  
                                   EXP.            CALC.  
   30.0                    1.355            1.290  
   40.0                    1.154            1.109  
   60.0                    0.877            0.843  
 NUMBER OF DATA POINTS            3  
 MEAN ABSOLUTE ERROR              4.2  
 REFERENCES                        24

NAME            3-NITRO-3-HEPTENE  
 FORMULA        C7 H13 N O2  
 CONSTANTS                    NE            B            TO(DEG.K)  
 FROM EXPERIMENTAL DATA    12.06      612.54      319.75  
 CALC. FROM CORRELATION    12.11      621.23      320.44  
 TEMP.                            VISCOSITY  
 (DEG.C)                        (CP)  
                                   EXP.            CALC.  
   30.0                    1.292            1.290  
   40.0                    1.107            1.109  
   60.0                    0.849            0.843  
 NUMBER OF DATA POINTS            3  
 MEAN ABSOLUTE ERROR              0.4  
 REFERENCES                        24

NAME            4-NITRO-3-HEPTENE  
 FORMULA        C7 H13 N O2  
 CONSTANTS                    NE            B            TO(DEG.K)  
 FROM EXPERIMENTAL DATA    11.86      595.72      316.97  
 CALC. FROM CORRELATION    11.91      608.41      317.67  
 TEMP.                            VISCOSITY  
 (DEG.C)                        (CP)  
                                   EXP.            CALC.  
   30.0                    1.235            1.235  
   40.0                    1.063            1.066  
   60.0                    0.821            0.815  
 NUMBER OF DATA POINTS            3  
 MEAN ABSOLUTE ERROR              0.3  
 REFERENCES                        24

NAME 2-NITRO-2-OCTENE  
 FORMULA C8 H15 N O2

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	13.36	666.11	336.75
CALC. FROM CORRELATION	13.35	732.80	336.62

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	1.680	1.739
40.0	1.419	1.456
60.0	1.064	1.054

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 2.4  
 REFERENCES 24

NAME 3-NITRO-2-OCTENE  
 FORMULA C8 H15 N O2

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	13.21	693.02	334.88
CALC. FROM CORRELATION	13.07	681.15	333.12

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	1.673	1.592
40.0	1.402	1.350
60.0	1.040	0.999

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 4.1  
 REFERENCES 24

NAME 3-NITRO-3-OCTENE  
 FORMULA C8 H15 N O2

CONSTANTS	NE	B	TO( DEG.K)
FROM EXPERIMENTAL DATA	12.90	649.02	330.95
CALC. FROM CORRELATION	13.07	681.15	333.12

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	1.536	1.592
40.0	1.301	1.350
60.0	0.984	0.999

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 3.0  
 REFERENCES 24

NAME 4-NITRO-3-OCTENE  
 FORMULA C8 H15 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	12.74	657.30	328.88
CALC. FROM CORRELATION	12.87	668.89	330.57

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	1.499	1.524
40.0	1.268	1.296
60.0	0.955	0.964

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 1.6  
 REFERENCES 24

NAME 4-NITRO-4-OCTENE  
 FORMULA C8 H15 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.02	680.49	332.49
CALC. FROM CORRELATION	12.87	668.89	330.57

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	1.603	1.524
40.0	1.347	1.296
60.0	1.005	0.964

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 4.3  
 REFERENCES 24

NAME 2-NITRO-2-NONENE  
 FORMULA C9 H17 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	14.27	709.17	347.58
CALC. FROM CORRELATION	14.31	782.74	348.03

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	2.019	2.152
40.0	1.683	1.780
60.0	1.241	1.260

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 4.6  
 REFERENCES 24

NAME 3-NITRO-2-NONENE  
 FORMULA C9 H17 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	14.06	753.73	345.15
CALC. FROM CORRELATION	14.03	738.37	344.80

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	2.038	1.968
40.0	1.680	1.646
60.0	1.215	1.188

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 2.6  
 REFERENCES 24

NAME 3-NITRO-3-NONENE  
 FORMULA C9 H17 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.87	721.02	342.92
CALC. FROM CORRELATION	14.03	738.37	344.80

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	1.915	1.968
40.0	1.595	1.646
60.0	1.168	1.188

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 2.6  
 REFERENCES 24

NAME 4-NITRO-3-NONENE  
 FORMULA C9 H17 N O2

CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	13.77	729.81	341.73
CALC. FROM CORRELATION	13.83	726.67	342.44

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
30.0	1.899	1.884
40.0	1.576	1.579
60.0	1.151	1.146

NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 0.5  
 REFERENCES 24

NAME 4-NITRO-4-NONENE  
 FORMULA C9 H17 N O2  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 13.76 715.41 341.61  
 CALC. FROM CORRELATION 13.83 726.67 342.44  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 30.0 1.872 1.884  
 40.0 1.560 1.579  
 60.0 1.146 1.146  
 NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 0.6  
 REFERENCES 24

NAME 5-NITRO-4-NONENE  
 FORMULA C9 H17 N O2  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 13.82 737.09 342.32  
 CALC. FROM CORRELATION 13.83 726.67 342.44  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 30.0 1.927 1.884  
 40.0 1.595 1.579  
 60.0 1.162 1.146  
 NUMBER OF DATA POINTS 3  
 MEAN ABSOLUTE ERROR 1.5  
 REFERENCES 24

NAME TRIFLUOROMETHYLCYCLOHEXANE  
 FORMULA C7 H11 F3  
 CONSTANTS NE B TO(DEG.K)  
 FROM EXPERIMENTAL DATA 10.02 531.75 288.87  
 CALC. FROM CORRELATION 8.84 490.32 268.30  
 TEMP. (DEG.C) VISCOSITY (CP)  
 EXP. CALC.  
 20.0 0.951 0.700  
 30.0 0.829 0.616  
 40.0 0.733 0.547  
 50.0 0.648 0.489  
 60.0 0.575 0.441  
 NUMBER OF DATA POINTS 5  
 MEAN ABSOLUTE ERROR 25.0  
 REFERENCES 19



NAME TRIFLUOROTOLUENE

FORMULA C7 H5 F3

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 7.85 417.84 249.32  
CALC. FROM CORRELATION 7.96 473.48 251.51

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.573	0.540
30.0	0.512	0.478
40.0	0.462	0.426
50.0	0.420	0.382
60.0	0.387	0.346

NUMBER OF DATA POINTS	5
MEAN ABSOLUTE ERROR	8.0
REFERENCES	19

NAME TRIFLUORO-2-PROPANOL (TRIFLUOROISOPROPANOL)

FORMULA C3 H5 F3 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 12.56 1352.82 326.52  
CALC. FROM CORRELATION 12.74 1500.30 328.88

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
15.0	3.668	4.412
25.0	2.556	2.951
35.0	1.784	2.026
45.0	1.297	1.425
55.0	0.994	1.023

NUMBER OF DATA POINTS	5
MEAN ABSOLUTE ERROR	12.4
REFERENCES	19

NAME TRIFLUORO-2-METHYLPROPANOL (TRIFL.ISOBUTANOL)

FORMULA C4 H7 F3 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 13.00 1455.54 332.23  
CALC. FROM CORRELATION 14.10 1541.93 345.62

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
25.0	3.320	5.130
30.0	2.706	4.215
35.0	2.240	3.485
40.0	1.845	2.900
45.0	1.590	2.427
55.0	1.190	1.727

NUMBER OF DATA POINTS	6
MEAN ABSOLUTE ERROR	53.5
REFERENCES	19

NAME TRIFLUOROETHANOIC ACID (TRIFLUOROACETIC ACID)

FORMULA C2 H F3 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 9.72 585.54 283.84  
 CALC. FROM CORRELATION 9.88 557.36 286.54

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.873	0.904
30.0	0.752	0.782
40.0	0.652	0.683
50.0	0.571	0.602
60.0	0.504	0.534
65.0	0.473	0.505

NUMBER OF DATA POINTS 6  
 MEAN ABSOLUTE ERROR 5.1  
 REFERENCES 19

NAME TRIFLUOROETHANOIC ACID, 2-PROPYL ESTER

FORMULA C5 H7 F3 O2

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 9.05 564.92 272.12  
 CALC. FROM CORRELATION 8.31 533.93 258.34

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
20.0	0.724	0.568
30.0	0.624	0.495
40.0	0.544	0.435
50.0	0.479	0.385
60.0	0.425	0.343

NUMBER OF DATA POINTS 5  
 MEAN ABSOLUTE ERROR 20.2  
 REFERENCES 19

NAME TRIFLUORO-2-PROPANONE (TRIFLUOROACETONE)

FORMULA C3 H3 F3 O

CONSTANTS NE B TO(DEG.K)

FROM EXPERIMENTAL DATA 6.36 442.45 217.52  
 CALC. FROM CORRELATION 6.26 403.82 215.23

TEMP. (DEG.C)	VISCOSITY (CP)	
	EXP.	CALC.
8.0	0.358	0.363
10.0	0.350	0.355
12.0	0.342	0.347
14.0	0.333	0.339
15.0	0.328	0.335

NUMBER OF DATA POINTS 5  
 MEAN ABSOLUTE ERROR 1.6  
 REFERENCES 19

NAME	TRIFLUOROTRICHLOROETHANE		
FORMULA	C2 CL3 F3		
CONSTANTS	NE	B	TO(DEG.K)
FROM EXPERIMENTAL DATA	8.77	489.18	267.01
CALC. FROM CORRELATION	9.52	526.79	280.41
TEMP. (DEG.C)	VISCOSITY (CP)		
	EXP.	CALC.	
20.0	0.698	0.829	
30.0	0.614	0.723	
40.0	0.546	0.636	
45.0	0.516	0.599	
NUMBER OF DATA POINTS			4
MEAN ABSOLUTE ERROR			17.2
REFERENCES			19

## APPENDIX II

### ALPHABETICAL INDEX

The page numbers refer to the page of Appendix I where the viscosity data of the compounds can be found.

Many compounds are mentioned twice in the index; once by the name following the IUPAC 1957 rules and often by one trivial name.



Acetic acid	A 82	1-Butanol	A 79
Acetone	A 107	2-Butanone	A 107
Acetophenone	A 110	1-Butene	A 25
Allyl alcohol	A 87	n-Butyl acetate	A 103
Allyl amine	A 142	n-Butylamine	A 136
Allyl bromide	A 134	Butylbenzene	A 60
Allyl chloride	A 133	n-Butyl bromide	A 120
Allyl iodide	A 134	Butylcyclohexane	A 38
2-Aminotoluene	A 138	Butylcyclopentane	A 47
3-Aminotoluene	A 138	n-Butyl formate	A 103
4-Aminotoluene	A 138	Butyric acid	A 90
3-Aminopropene	A 142		
n-Amyl acetate	A 103	Capric acid	A 92
d-Amyl alcohol	A 82	Caproic acid	A 91
n-Amyl bromide	A 120	n-Caprylic acid	A 92
Aniline	A 137	Carbon tetrachloride	A 129
Anisole	A 115	2-Chloroaniline	A 139
		3-Chloroaniline	A 139
Benzene	A 56	4-Chloroaniline	A 139
Benzoic acid	A 95	Chlorobenzene	A 126
Benzoic acid, benzyl ester	A 106	Chloroethane	A 117
Benzoic acid, ethyl ester	A 106	Chloroform	A 128
		Chloromethane	A 117
Benzophenone	A 110	1-Chloro, 2-methylpropane	A 118
Benzyl alcohol	A 84	o-Chlorophenol	A 85
Benzyl amine	A 140	m-Chlorophenol	A 85
Benzyl benzoate	A 106	p-Chlorophenol	A 85
Benzyl phenyl amine	A 141	1-Chloropropane	A 118
Biphenyl	A 76	2-Chloropropane	A 118
Bromobenzene	A 126	3-Chloropropane	A 133
1-Bromobutane	A 120	o-Cresol	A 86
1-Bromodecane	A 122	m-Cresol	A 86
Bromoethane	A 119	p-Cresol	A 86
Bromoform	A 131	2-Cresyl methyl ether	A 116
1-Bromoheptane	A 121	3-Cresyl methyl ether	A 116
1-Bromohexane	A 120	4-Cresyl methyl ether	A 116
1-Bromo, 2-methyl propane	A 122	Cyclohexane	A 35
1-Bromononane	A 121	Cyclopentane	A 44
1-Bromooctane	A 121		
1-Bromopentane	A 120	Decane	A 8
1-Bromopropane	A 119	Decanoic acid	A 92
3-Bromopropene	A 134	1-Decene	A 28
Butane	A 2	Decylbenzene	A 66
Butanoic acid	A 90	n-Decyl bromide	A 122
Butanoic acid, ethyl ester	A 100	Decylcyclohexane	A 41
Butanoic acid, methyl ester	A 97	Decylcyclopentane	A 53
Butanoic acid, propyl ester	A 103	1,2-Dibromoethane	A 132
		Dibromomethane	A 131
		1,2-Dibromo-2-methylpropane	A 133

1,2-Dibromopropane	A 132	Ethanoic acid, pentyl ester	A 103
Dibutyl ketone	A 109	Ethanoic acid, propyl ester	A 102
1,1-Dichloroethane	A 129	Ethanoic acid, 2-propyl ester	A 104
1,2-Dichloroethane	A 130	Ethanol	A 78
Dichloromethane	A 128	Ethene	A 24
1,5-Dichloropentane	A 131	Ethyl acetate	A 99
Diethyl amine	A 136	Ethylamine	A 135
N,N-Diethylaniline	A 142	N-Ethylaniline	A 140
Diethyl ether	A 111	Ethylbenzene	A 58
Diethyl ketone	A 108	Ethyl benzoate	A 106
Diethyl phtalate	A 106	Ethyl n-butyl ketone	A 109
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Diisobutyl ether	A 114	Ethyl bromide	A 119
Diisopropyl ether	A 114	Ethyl caprylate	A 100
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1,3-Dimethylbenzene	A 73	Ethylcyclopentane	A 45
1,4-Dimethylbenzene	A 74	Ethyl formate	A 98
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2,2-Dimethylbutane	A 21	Ethyl iodide	A 123
2,3-Dimethylbutane	A 23	Ethyl isobutyl ether	A 114
2,2-Dimethylpropane	A 23	Ethyl 2-methylpropyl ether	A 114
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Diphenylamine	A 141	Ethyl pelargonate	A 101
Dipropyl ether	A 113	Ethyl phenyl ether	A 115
Di(2-propyl)ether	A 114	Ethyl propionate	A 99
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Ethanoic acid, butyl ester	A 103	Heptanoic acid	A 91
Ethanoic acid, ethyl ester	A 99	1-Heptanol	A 80
Ethanoic acid, methyl ester	A 96	2-Heptanone	A 109
Ethanoic acid, 2-methyl-propyl ester	A 105	3-Heptanone	A 109

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1-Heptene	A 26	Isoprene	A 34
Heptylbenzene	A 63	Isopropyl acetate	A 104
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Heptylcyclohexane	A 39	Isopropylbenzene	A 75
Heptylcyclopentane	A 50	Isopropyl chloride	A 118
Hexacosane	A 19	Isopropyl formate	A 104
Hexadecane	A 14	Isopropyl iodide	A 124
Hexadecanoic acid	A 93	Isopropyl trifluoro-	A 153
Hexadecanoic acid, ethyl ester	A 101	acetate	
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Hexadecylcyclopentane	A 56		
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Hexane	A 4	Methanoic acid	A 89
Hexanoic acid	A 91	Methanoic acid, butyl-	A 103
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2-Hexanone	A 108	Methanoic acid, ethyl	A 98
1-Hexene	A 26	ester	
Hexylbenzene	A 62	Methanoic acid, methyl	A 96
n-Hexyl bromide	A 120	ester	
Hexylcyclohexane	A 39	Methanoic acid, 2-methyl	A 105
Hexylcyclopentane	A 49	propyl ester	
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4-Hydroxytoluene	A 86	Methanoic acid, 2-propyl	A 104
		ester	
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Isoamylamine	A 137	2-Methylbutanol-1	A 82
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Isobutyl acetate	A 105	3-Methylbutanol-1	A 82
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Isobutyl bromide	A 122	Methyl n-butyl ketone	A 108
Isobutyl chloride	A 118	Methyl butyrate	A 97
Isobutyl formate	A 105	Methyl chloride	A 117
Isobutyl iodide	A 125	Methylcyclohexane	A 35
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Methyl isobutyl ketone	A 110	Nonadecane	A 17
Methyl isobutyrate	A 104	1-Nonadecene	A 32
Methyl laurate	A 98	Nonane	A 7
Methyl 2-methylpropyl ether	A 113	Nonanoic acid	A 92
2-Methylpentane	A 21	Nonanoic acid, ethyl ester	A 101
4-Methyl-2-pentanone	A 110	5-Nonanone	A 109
Methyl phenyl ether	A 115	1-Nonene	A 27
2-Methylpropane	A 20	Nonylbenzene	A 65
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2-Methylpropanoic acid, methyl ester	A 104	Nonylcyclohexane	A 40
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2-Methylpropanol-2	A 83		
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(2-Methylpropyl)amine	A 137	Octadecanoic acid	A 94
Methyl propyl ether	A 111	Octadecanoic acid, ethyl ester	A 101
Methyl propyl ketone	A 108	1-Octadecene	A 32
Methyl valerate	A 97	9-Octadecenoic acid	A 94
Methylene bromide	A 131	Octane	A 6
Methylene chloride	A 128	Octanoic acid	A 92
Myristic acid	A 93	Octanoic acid, ethyl ester	A 100
Neohexane	A 21	1-Octanol	A 81
Neopentane	A 23	1-Octene	A 27
Nitrobenzene	A 143	Octylbenzene	A 64
2-Nitro-2-butene	A 144	n-Octyl bromide	A 121
2-Nitro-2-hexene	A 145	Octylcyclohexane	A 40
3-Nitro-2-hexene	A 146	Octylcyclopentane	A 51
3-Nitro-3-hexene	A 146	Oleic acid	A 94
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3-Nitro-2-heptene	A 147		
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Nitromethane	A 143	Pentadecane	A 13
2-Nitro-2-nonene	A 149	1-Pentadecene	A 30
3-Nitro-2-nonene	A 150	Pentadecylbenzene	A 71
3-Nitro-3-nonene	A 150	Pentadecylcyclohexane	A 43
4-Nitro-3-nonene	A 150	Pentadecylcyclopentane	A 55
4-Nitro-4-nonene	A 151	Pentane	A 2
5-Nitro-4-nonene	A 151	Pentanoic acid	A 91
2-Nitro-2-octene	A 148	Pentanoic acid, ethyl ester	A 100
3-Nitro-2-octene	A 148		
3-Nitro-3-octene	A 148	Pentanoic acid, methyl ester	A 97
4-Nitro-3-octene	A 149		
4-Nitro-4-octene	A 149	1-Pentanol	A 80
2-Nitro-2-pentene	A 145	2-Pentanone	A 108

3-Pentanone	A 108	o-Terphenyl	A 76
1-Pentene	A 25	m-Terphenyl	A 77
Pentylbenzene	A 61	p-Terphenyl	A 77
Pentylcyclohexane	A 38	Tertiary amyl alcohol	A 83
Pentylcyclopentane	A 48	Tertiary butyl alcohol	A 83
Phenetole	A 115	1,1,2,2-Tetrachloro-	A 130
Phenol	A 84	ethane	
Phenylacetic acid	A 95	Tetrachloromethane	A 129
Phenylethanoic acid	A 95	Tetradecane	A 12
2-Phenylethanol	A 84	Tetradecanoic acid	A 93
Phenylethanone	A 110	1-Tetradecene	A 30
3-Phenylpropanoic acid	A 95	Tetradecylbenzene	A 70
β-Phenylpropionic acid	A 95	Tetradecylcyclohexane	A 42
Phtalic acid, diethyl ester	A 106	Tetradecylcyclopentane	A 55
Propane	A 2	Toluene	A 57
1,2-Propanediol	A 88	o-Toluidine	A 138
Propanoic acid	A 90	m-Toluidine	A 138
Propanoic acid, ethyl ester	A 99	p-Toluidine	A 138
Propanoic acid, methyl ester	A 97	Triacontane	A 19
Propanoic acid, 2-methylpropyl ester	A 105	Tribromomethane	A 131
Propanoic acid, propyl ester	A 102	Trichloromethane	A 128
1-Propanol	A 79	Tridecane	A 11
2-Propanol	A 81	1-Tridecene	A 29
2-Propanone	A 107	Tridecylbenzene	A 69
Propene	A 24	Tridecylcyclohexane	A 42
3-Propenol	A 87	Tridecylcyclopentane	A 54
Propionic acid	A 90	Trifluoroacetic acid	A 153
Propyl acetate	A 102	Trifluoroacetone	A 153
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Propylbenzene	A 59	Trifluoroethanoic acid, 2-propyl ester	A 153
(2-Propyl)benzene	A 75	Trifluoroisobutanol	A 152
Propyl bromide	A 119	Trifluoroisopropanol	A 152
Propyl butyrate	A 103	Trifluoromethylcyclohexane	A 151
Propyl chloride	A 118	Trifluoro-2-methylpropanol	A 152
Propylcyclohexane	A 37	Trifluoro-2-propanol	A 152
Propylcyclopentane	A 46	Trifluoro-2-propanone	A 153
Propyl formate	A 102	Trifluorotoluene	A 151
Propyl iodide	A 124	Trifluorotrichloroethane	A 154
Propyl phenyl ether	A 115	1,2,4-Trimethylbenzene	A 75
Propyl propionate	A 102	Undecane	A 9
Propylene glycol	A 88	1-Undecene	A 28
Stearic acid	A 94	Undecylbenzene	A 67
		Undecylcyclohexane	A 41
		Undecylcyclopentane	A 53

Valeric acid

A 91

o-Xylene

A 72

m-Xylene

A 73

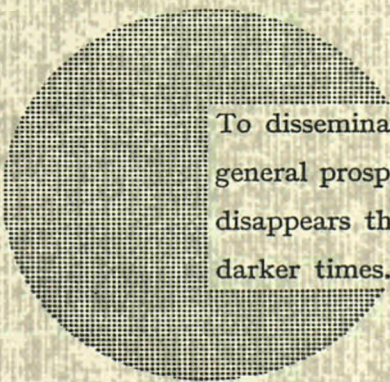
p-Xylene

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