

COMPONENTS:			ORIGINAL MEASUREMENTS:
1. Methanamine (methylamine); CH_5N ; [74-89-5]			Gerrard, W.
2. Benzoic acid, ethyl ester (ethyl benzoate); $\text{C}_9\text{H}_{10}\text{O}_2$; [93-89-0]			<i>Solubility of Gases and Liquids</i> , <i>Plenum</i> <u>1976</u> , Chapter 10.
VARIABLES:			PREPARED BY:
Temperature, pressure			C. L. Young
EXPERIMENTAL VALUES:			
T/K	P/mmHg	P/ 10^5 Pa	Mole fraction of methylamine in liquid, $x_{\text{CH}_3\text{NH}_2}$
273.15	100	0.133	0.093
	200	0.267	0.187
	300	0.400	0.281
	400	0.533	0.376
	500	0.667	0.466
	600	0.800	0.560
	700	0.933	0.656
	760	1.013	0.715
	283.15	100	0.133
200		0.267	0.126
300		0.400	0.188
400		0.533	0.256
500		0.667	0.318
600		0.800	0.373
700		0.933	0.444
293.15	760	1.013	0.490
	100	0.133	0.044
	200	0.267	0.088
	300	0.400	0.135
	400	0.533	0.180
	500	0.667	0.224
	600	0.800	0.272
700	0.933	0.320	
760	1.013	0.348	
AUXILIARY INFORMATION			
METHOD/APPARATUS/PROCEDURE:		SOURCE AND PURITY OF MATERIALS:	
Amine was passed into a known weight of pure liquid in a bubbler tube at a total pressure measured by a manometer assembly. The amount of absorbed gas was estimated by weighing. The temperature was manually controlled to within 0.2K. The apparatus and procedure are described by Gerrard [1,2].		1. British Drug Houses or Cambrian Gases sample. 2. Purified and attested by conventional procedures.	
		ESTIMATED ERROR: $\delta T/K = \pm 0.1$; $\delta x/x = \pm 3\%$ (estimated by compiler)	
		REFERENCES: 1. Gerrard, W. <i>J. Appl. Chem. Biotechnol.</i> <u>1972</u> , 22 623-650. 2. Gerrard, W. <i>Solubility of Gases and Liquids</i> . <i>Plenum Press, New York.</i> <u>1976</u> . Chapter 1.	

COMPONENTS:			ORIGINAL MEASUREMENTS:
1. Methanamine (Methylamine); CH_5N ; [74-89-5] 2. 1,1'-Oxybis-pentane (Dipentyl ether); $\text{C}_{10}\text{H}_{22}\text{O}$; [693-65-2]			Gerrard, W. <i>Solubility of Gases and Liquids</i> , <i>Plenum 1976</i> , Chapter 10.
VARIABLES:			PREPARED BY:
Pressure			C. L. Young
EXPERIMENTAL VALUES:			
			Mole fraction of methylamine in liquid, CH_3NH_2
T/K	P/mmHg	P/ 10^5 Pa	
273.15	100	0.133	0.075
	200	0.267	0.143
	300	0.400	0.212
	400	0.533	0.290
	500	0.667	0.373
	600	0.800	0.474
	700	0.933	0.586
	760	1.013	0.680
AUXILIARY INFORMATION			
METHOD/APPARATUS/PROCEDURE:		SOURCE AND PURITY OF MATERIALS:	
Amine was passed into a known weight of pure liquid in a bubbler tube at a total pressure measured by a manometer assembly. The amount of absorbed gas was estimated by weighing. The temperature was manually controlled to within 0.2K. The apparatus and procedure are described by Gerrard [1,2].		1. British Drug Houses or Cambrian Gases sample. 2. Purified and attested by conventional procedures.	
		ESTIMATED ERROR:	
		$\delta T/K = \pm 0.1$; $\delta x/x = \pm 3\%$ (estimated by compiler)	
		REFERENCES:	
		1. Gerrard, W. <i>J. Appl. Chem. Biotechnol.</i> <u>1972</u> , 22 623-650. 2. Gerrard, W. <i>Solubility of Gases and Liquids</i> . <i>Plenum Press, New York.</i> <u>1976</u> . Chapter 1.	

COMPONENTS:			ORIGINAL MEASUREMENTS:	
1. Methanamine (Methylamine); CH_5N ; [74-89-5] 2. 1,1'-Oxybisoctane (Dioctyl ether); $\text{C}_{16}\text{H}_{34}\text{O}$; [629-82-3]			Gerrard, W. <i>Solubility of Gases and Liquids, Plenum 1976</i> , Chapter 10.	
VARIABLES:			PREPARED BY:	
Temperature, pressure			C. L. Young	
EXPERIMENTAL VALUES:				
T/K	P/mmHg	P/ 10^5 Pa	Mole fraction of methylamine in liquid, $x_{\text{CH}_3\text{NH}_2}$	
273.15	100	0.133	0.076	
	200	0.267	0.144	
	300	0.400	0.215	
	400	0.533	0.284	
	500	0.667	0.356	
	600	0.800	0.440	
	700	0.933	0.530	
	760	1.013	0.604	
283.15	100	0.133	0.040	
	200	0.267	0.084	
	300	0.400	0.135	
	400	0.533	0.185	
	500	0.667	0.237	
	600	0.800	0.291	
	700	0.933	0.350	
	760	1.013	0.388	
AUXILIARY INFORMATION				
METHOD/APPARATUS/PROCEDURE:			SOURCE AND PURITY OF MATERIALS:	
Amine was passed into a known weight of pure liquid in a bubbler tube at a total pressure measured by a manometer assembly. The amount of absorbed gas was estimated by weighing. The temperature was manually controlled to within 0.2K. The apparatus and procedure are described by Gerrard [1,2].			1. British Drug Houses or Cambrian Gases sample. 2. Purified and attested by conventional procedures.	
			ESTIMATED ERROR:	
			$\delta T/K = \pm 0.1$; $\delta x/x = \pm 3\%$ (estimated by compiler)	
			REFERENCES:	
			1. Gerrard, W. <i>J. Appl. Chem. Biotechnol.</i> <u>1972</u> , 22 623-650. 2. Gerrard, W. <i>Solubility of Gases and Liquids. Plenum Press, New York. 1976.</i> Chapter 1.	