COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Water; H_2O; [7732-18-5]	Sapozhnikova, N. V.; Postovskii, I. Ya. *Zh. Prikl. Khim* 1944, *17*, 427-34.
VARIABLES: Temperature	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

t/°C	Solubility	
	Weight%	10^2mol kg^{-1} water[a]
20	0.627	2.94
37	1.16	5.48

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Sulfacetamide was dissolved in water to form a satd soln which was occasionnally agitated in a glass vessel immersed in a thermostat. The equilibrium was usually attained after 1 h. Five- to 100-cm^3 samples of the satd soln were placed in Pt crucibles or dishes and evapd to dryness at temps lower than 110-115°C. The residue was dried to const wt at 105-110°C and weighed.

SOURCE AND PURITY OF MATERIALS:

Pure, recrystd sulfacetamide was used. Its mp conformed to that reported in the literature.

Purity of the water was not specified.

ESTIMATED ERROR:

Soly: quite reliable results were obtained over the temp range 20-75°C (authors).

Temp: ±0.05°C (authors).

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Water; H_2O; [7732-18-5]	Langecker, H. *Arch. Exptl. Path. Pharmakol.* 1948, *205*, 291-301.
VARIABLES:	**PREPARED BY:**
One temperature: 37°C	R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in water at 37°C is 1400 mg% (6.53×10^{-2} mol dm^{-3}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
An excess of sulfacetamide in water was boiled for 1 h in a sealed ampul followed by keeping the soln at 37°C. Before assaying, the solute was treated with a 2.6N NaOH soln (1) to cleave the acetyl group and the sulfanilamide was detd colorimetrically by the method of Bratton and Marshall (2) using a Havemann colorimeter (3), as well as by microanal detn of the solid residue.	Source and purity of sulfacetamide was not specified. The water was free of oxidants.
	ESTIMATED ERROR: Nothing specified.

REFERENCES:

1. Scudi, J. V. *J. Lab. Clin. Med.* 1940, *25*, 404.
2. Bratton, A. G.; Marshall, E. K. *J. Biol. Chem.* 1939, *128*, 537.
3. Havemann R. *Klin. Wochenschr.* 1940, p. 503.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Water; H_2O; [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M. *Farm. Zh. (Kiev)* 1960, *15(3)*, 21-4.
VARIABLES: One temperature: 20°C	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in water at 20°C is 0.501 g/100 g water (2.34×10^{-2} mol kg^{-1}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
A small excess of sulfacetamide was equilibrated for 8 h in a 50-ml test tube with 20 ml of water. Aliquots were taken with a pipet fitted with a filter. Sulfacetamide was detd at 295 nm using a SF-4 spectrophotometer.	Sulfacetamide was prepd from a purified Na salt by neutralizing it with equivalent quantity of aq HCl. The product was repeatedly washed with water and its purity conformed to the requirements of the State Pharmacopeia VIII. Purity of the water was not specified.
	ESTIMATED ERROR: Soly: the accuracy corresponded to that of the colorimetric detns (authors). Temp: not specified.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Water; H_2O; [7732-18-5]	Likhol'ot, N. M. *Farm. Zh. (Kiev)* 1965, *20(5)*, 44-6.
VARIABLES:	**PREPARED BY:**
One temperature: 20°C	R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in water at 20°C is 0.501 g/100 ml (2.34×10^{-2} mol dm^{-3}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
An earlier described method was employed (1) whereby a small excess of sulfacetamide was equilibrated with 20 ml of water for 8 h in a 50-ml test tube. Aliquots were withdrawn through a filter and sulfacetamide was assayed bromatometrically.	Nothing specified.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.1°C (authors).
	REFERENCES: 1. Gusyakov, V. P.; Likhol'ot, N. M. *Farm. Zh. (Kiev)* 1960, *15(8)*, 21.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Water; H_2O; [7732-18-5]	Yamazaki, M.; Aoki, M.; Kamada, A.; Yata, N. *Yakuzaigaku* 1967, *27(1)*, 37-40.
VARIABLES: One temperature: 30°C	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in water at 30°C is 41.4 mmol/L (8.87 g dm^{-3}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Sulfacetamide (0.5 g) was placed in an L-shaped tube together with 20 ml of water. The mixt was shaken in a thermostat until equilibrium was attained. The sulfacetamide was then assayed in the supernatant spectrophotometrically at 545 nm on a Beckmann DU spectrophotometer. The results were taken from a calibration graph.	Nothing specified.
	ESTIMATED ERROR: Soly: not specified. Temp: ±1°C (authors).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Water; H_2O [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M.; Kutna, I. M. *Farm. Zh. (Kiev)* 1967, *22(3)*, 34-9.
VARIABLES: One temperature: 20°C	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in water at 20°C is 0.50 g/100 ml (2.3×10^{-2} mol dm^{-3}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
An excess of sulfacetamide in water was equilibrated for 24 h in an ampul immersed in a water thermostat. Aliquots of the satd soln were withdrawn through a filter and the sulfacetamide content was assayed in the filtrate photometrically.	Purity of the sulfacetamide conformed to the requirements of the State Pharmacopeia IX. Purity of the water was not specified.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.1°C (authors).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Water; H_2O; [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M.; Kutna, I. M. *Farm. Zh. (Kiev)* 1968, *23(6)*, 56-61.
VARIABLES: One temperature: 21-25°C	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in water at room temperature (21-25°C) is 0.501 g/100 ml (2.334×10^{-2} mol dm^{-3}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Small quantities (2-4 mg) of sulfacetamide were added to a known quantity of water under stirring until satn was attained.	Sulfacetamide: neither source nor purity was specified. Purity of the water was not specified.
	ESTIMATED ERROR: Nothing specified.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Water; H_2O; [7732-18-5]	Shkadova, A. I. *Farm. Zh. (Kiev)* 1969, *24(3)*, 39-41.
VARIABLES: One temperature: 20°C	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in water at 20°C is 3.02×10^{-2} mol/kg (0.647 g/100 g, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
A satd aqueous soln of sulfacetamide was equilibrated in a water thermostat at 20±0.1°C. The concn of sulfacetamide was detd by alkalimetric titrn.	Sulfacetamide was prepd from its Na salt by addn of equivalent quantity of 0.1N HCl. The product was washed with water and dried. Distd. water was used.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.1°C (author).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Water; H_2O; [7732-18-5]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38* 1342-4.
VARIABLES:	**PREPARED BY:**
One temperature: 20°C	R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in water at 20°C is 0.318_8 b/50 ml ($2.975_8 \times 10^{-2}$ mol dm^{-3}, compiler) and 0.315 g/50 ml (2.93×10^{-2} mol dm^{-3}, compiler)[a].

[a] Two values were given without comment (compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The soln was equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed by differential gravimetric analysis. No details were given.	The source and purity of the materials was not specified.
	ESTIMATED ERROR: Soly: mean std deviation (68.3% of results deviating by S g), S = 0.019; relative std deviation 6.09%; no of measurements 34 (author). Temp: ±0.05°C (author).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Water; H_2O; [7732-18-5]	Kaneniwa, N.; Watari, N.; Iijima, H. *Chem. Pharm. Bull.* 1978, *26(9)*, 2603-14.
VARIABLES: One temperature: 37°C	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

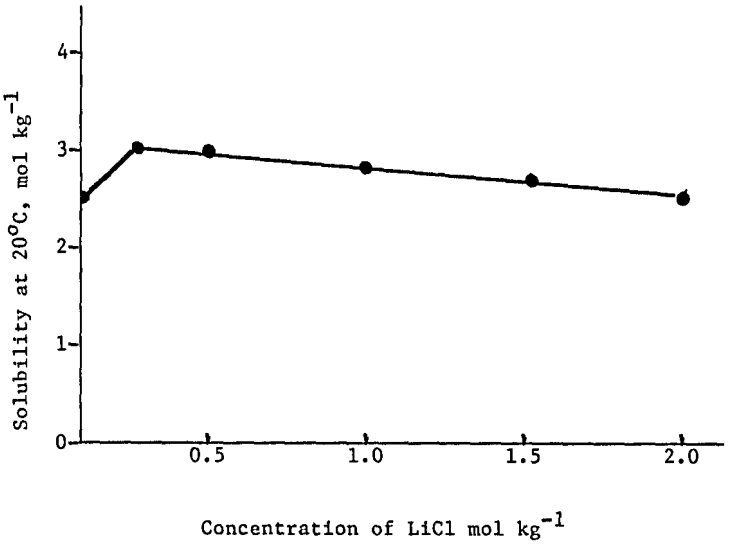
Solubility of sulfacetamide in water at 37°C is 12.0 mg/ml solution (5.60×10^{-2} mol dm^{-3}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
An excess of sulfacetamide was placed in a flask contg 25 ml of water. The flask was shaken (2 strokes/s at the amplitude of 3 cm) in a thermostatically controlled water bath at 37°C. One-ml sample was withdrawn every 6 h (total equilibration period was 3-5 days) using a warmed Millipore filter syringe with a filter pore size of 0.45μ (Millipore HAWP 01300) and the filtrate was dild with water and assayed spectrophotometrically (1).	Comm sulfacetamide of the Japanese Pharmacopeia grade and distd water were used.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.05°C (authors).
	REFERENCES: 1. Kanenisa, N.; Watari, N. *Chem. Pharm. Bull.* 1974, *22*, 1969.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)sulfonyl]-(sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Lithium chloride; LiCl; [7447-41-8] (3) Water; H_2O; [7732-18-5]	Likholet, N. M., Gusyakov, V. P. *Med. Prom. SSSR* 1963, *17(5)*, 28-31.
VARIABLES: Concentration of LiCl	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Satd solns of sulfacetamide were prepd in 50-ml tightly closed ampuls in which 20 ml of a LiCl soln was placed and a small excess of sulfacetamide. The mixts were equilibrated at 20°C for 18 h. Aliquots were pipetted out through a filter, dild, and assayed spectrophotometrically at 285 nm on a SF-IV spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was purified by crystn.

LiCl was purified by a recommended procedure (1).

The source and purity of the materials were not specified.

ESTIMATED ERROR:

Soly: measurements were repeated several times (authors).

Temp: ±0.1°C (authors).

REFERENCES:

1. Karyakin, Ya. V.; Angelov, I. I. *Chistye khimicheskye reaktivy*, Moscow, 1955.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [133-80-9] (2) Sodium chloride; NaCl; [7647-14-5] (3) Water; H_2O; [7732-18-5]	Langecker, H. *Arch. Exptl. Path. Pharmakol.* 1948, *205*, 291-301.
VARIABLES: One temperature: 37°C	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in physiological saline (0.9% w/w NaCl solution) at 37°C is 983 mg% (4.59×10^{-2} mol dm^{-3}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

An excess of sulfacetamide was added to physiological saline and boiled for 1 h in a sealed ampul followed by keeping the ampul at 37°C. Before assaying, the solute was treated with a 2.6 N NaOH soln (1) to cleave the acetyl group and the sulfanilamide was detd colorimetrically by the method of Bratton and Marshall (2) using a Havemann colorimeter (3), as well as by microanal detn of the solid residue.

SOURCE AND PURITY OF MATERIALS:

Source and purity of the materials was not specified.

ESTIMATED ERROR:

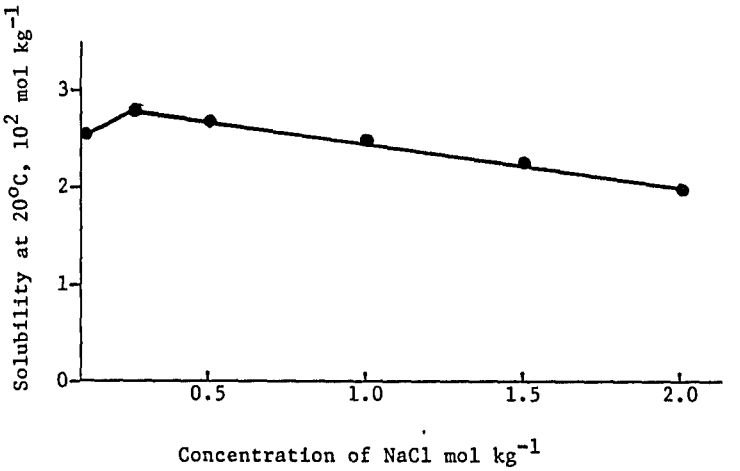
Nothing specified.

REFERENCES:

1. Scudi, J. V. *J. Lab. Clin. Med.* 1940, *25*, 404.
2. Bratton, A. G.; Marshall, E. K. *J. Biol. Chem.* 1939, *128*, 537.
3. Havemann, R. *Klin. Wochenschr.* 1940, p. 503.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N - [(4-aminophenyl)sulfonyl- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9]	Likholet, N. M.; Gusyakov, V. P. *Med. Prom. SSSR* 1963, *17(5)*, 28-31.
(2) Sodium chloride; NaCl; [7647-14-5]	
(3) Water; H_2O; [7732-18-5]	
VARIABLES: Concentration of NaCl	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Satd solns of sulfacetamide were prepd in 50-ml tightly closed ampuls in which 20 ml of a NaCl soln was placed and a small excess of sulfacetamide. The mixts were equilibrated for 18 h at 20°C. Aliquots were pipetted out through a filter, dild, and assayed spectrophotometrically at 285 nm on a SF-IV spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was purified by crystn. NaCl was purified by a recommended procedure (1). The source and purity of the materials were not specified.

ESTIMATED ERROR:

Soly: measurements were repeated several times (authors).

Temp: ±0.1°C (authors).

REFERENCES:

1. Karyakin, Ya. V. ; Angelov, I. I. *Chistye khimicheskye reaktivy*, Moscow, 1955.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Phosphoric acid, disodium salt; Na_2HPO_4; [7558-94-4] (3) Water; H_2O; [7732-18-5]	Krüger-Thiemer, E. *Arch. Dermatol. Syphilis* 1942, *183*, 90-116.
VARIABLES: One temperature: ea 20°C; one pH: 8.74	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in a 0.705 M (10%) Na_2HPO_4 solution of pH 8.74 at room temperature (about 20°C) is 5.230 g% (2.441×10^{-1} mol dm^{-3} solution, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Sulfacetamide (0.5 g) was dissolved in the 0.705 M (10%) Na_2HPO_4 soln (pH 8.74) at room temp (about 20°C), shaken for 2 h at 20°C, and filtered. A 1 cm^3 aliquot was then withdrawn, cooled, 1 cm^3 of 2N HCl was added, and the sulfacetamide content was detd colorimetrically by the Marshall method modified by Kimmig (1) using an Authenreith colorimeter. The pH was detd on an ultraionograph using a glass electrode.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was the product manufd by Schering AG under the name Albucid. The source and purity of the remaining materials was not specified.

ESTIMATED ERROR:

Soly: precision ±5% (author).

Temp: not specified.

pH: ±0.05 pH unit (author).

REFERENCES:

1. Kimmig, J. *Arch. Dermatol.* 1938, *176*, 722; *Erg. Hyg.* 1941, *24*, 398.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9]	Gusyakov, V. P.; Likhol'ot, N. M.
(2) Potassium chloride; KCl; [7447-40-7]	*Farm. Zh. (Kiev)* 1960, *15(3)*, 21-4.
(3) Water; H_2O; [7732-18-5]	
VARIABLES:	**PREPARED BY:**
Concentration of KCl	R. Piekos

EXPERIMENTAL VALUES:

Concentration of KCl	Solubility at 20°C	
Weight %	g/100 g water	10^2 mol kg^{-1} [a]
0.74	0.493	2.30
1.82	0.551	2.57
3.59	0.566	2.64
6.93	0.541	2.53
12.97	0.454	2.12
15.70	0.394	1.84

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A small excess of sulfacetamide was equilibrated for 8 h in a 50-ml test tube with 20 ml of aqueous KCl soln. Aliquots were taken with a pipet fitted with a filter. Sulfacetamide was detd in the filtrate at 285 nm using a SF-4 spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was prepd from a purified Na salt by neutralizing it with equivalent quantity of aq. HCl. The product was repeatedly washed with water and conformed to the requirements of the State Pharmacopeia VIII. KCl was doubly crystd. Purity of the water was not specified.

ESTIMATED ERROR:

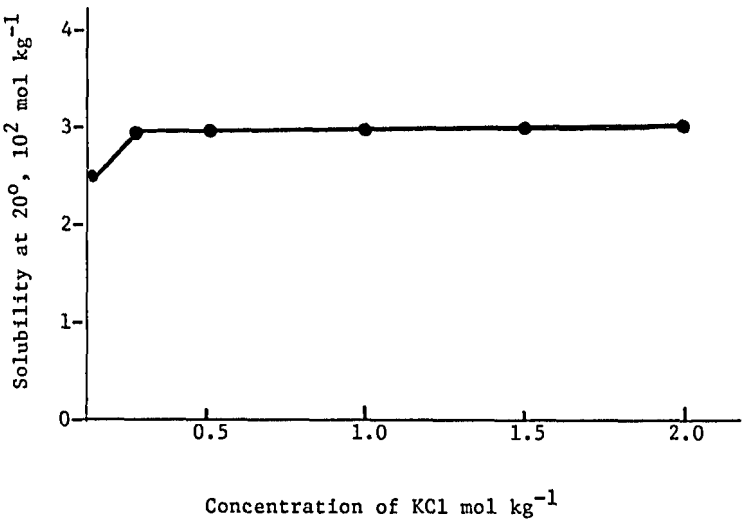
Soly: the accuracy corresponded to that of colorimetric detns (authors).

Temp: not specified.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl-)sulfonyl]-(sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Potassium chloride; KCl; [7447-40-7] (3) Water; H_2O; [7732-18-5]	Likholet, N. M.; Gusyakov, V. P. *Med. Prom. SSSR* 1963, *17(5)*, 28-31.
VARIABLES: Concentration of KCl	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Satd solns of sulfacetamide were prepd in 50-ml tightly closed ampuls in which 20 ml of a KCl soln was placed and a small excess of sulfacetamide. The mixts were equilibrated at 20°C for 18 h. Aliquots were pipetted out through a filter, dild, and assayed spectrophotometrically at 285 nm on a SF-IV spectrophotomer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was purified by crystn. KCl was purified by a recommended procedure (1). The source and purity of the materials were not specified.

ESTIMATED ERROR:

Soly: measurements were repeated several times (authors).

Temp: ±0.1°C (authors).

REFERENCES:

1. Karyakin, Ya. V.; Angelov, I. I. *Chistye khimicheskye reaktivy.* Moscow, 1955.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Potassium bromide; KBr; [7758-02-3] (3) Water; H_2O; [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M. *Farm. Zh. (Kiev)* 1960, *15(3)*, 21-4.
VARIABLES: Concentration of KBr	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

Concentration of KBr	Solubility at 20°C	
Weight %	g/100 g water	10^2 mol kg^{-1} [a]
1.17	0.501	2.34
2.88	0.514	2.40
5.61	0.587	2.74
10.63	0.668	3.12
19.22	0.769	3.59

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A small excess of sulfacetamide was equilibrated for 8 h in a 50-ml test tube with 20 ml of aqueous KBr soln. Aliquots were taken with a pipet fitted with a filter. Sulfacetamide was detd in the filtrate at 285 nm using a SF-4 spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was prepd from a purified Na salt by neutralizing it with equivalent quantity of aq HCl. The product was repeatedly washed with water and conformed to the requirements of the State Pharmacopeia VIII. KBr was doubly crystd. Purity of the water was not specified.

ESTIMATED ERROR:

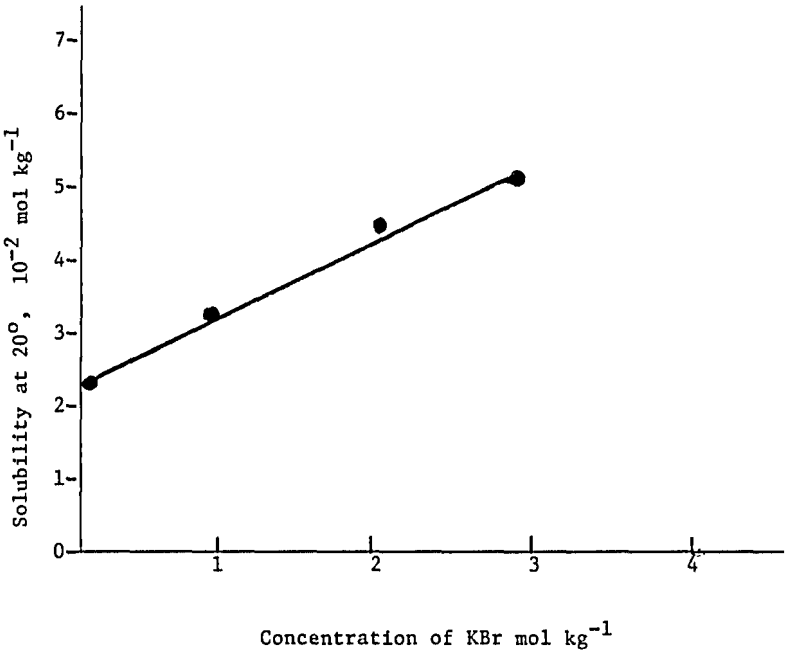
Soly: the accuracy corresponded to that of colorimetric detns (authors).

Temp: not specified.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)sulfonyl] (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Potassium bromide; KBr; [7758-02-3] (3) Water; H_2O; [7732-18-5]	Likholet, N. M.; Gusyakov, V. P. *Med. Prom. SSSR* 1963, *17(5)*, 28-31.
VARIABLES: Concentration of KBr	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Satd solns of sulfacetamide were prepd in 50-ml tightly closed ampuls in which 20 ml of a KBr soln was placed and a small excess of sulfacetamide. The mixts were equilibrated at 20°C for 18 h. Aliquots were pipetted out through a filter, dild, and assayed spectrophotometrically at 285 nm on a SF-IV spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was purified by crystn. KBr was purified by a recommended procedure (1). The source and purity of the reagents were not specified.

ESTIMATED ERROR:

Soly: measurements were repeated several times (authors).

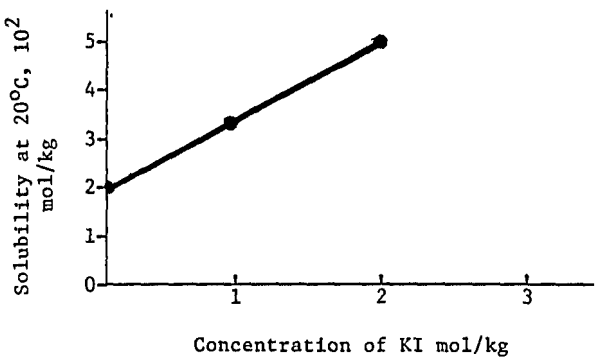
Temp: ±0.1°C (authors).

REFERENCES:

1. Karyakin, Ya. V.; Angelov, I. I. *Chistye khimicheskye reaktivy*, Moscow, 1955.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]-(sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Potassium iodide; KI; [7681-11-0] (3) Water; H_2O; [7732-18-5]	Likholet, N. M; Gusyakov, V. P. *Med. Prom. SSSR* 1963, *17(5)*, 28-31.
VARIABLES: Concentration of KI	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Satd solns of sulfacetamide were prepd in 50-ml tightly closed ampuls in which 20 ml of a KI soln was placed and a small excess of sulfacetamide. The mixts were equilibrated at 20°C for 18 h. Aliquots were pipetted out through a filter, dild, and assayed spectrophotometrically at 285 nm on a SF-IV spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was purified by crystn.

KI was purified by a recommended procedure (1).

The source and purity of the materials were not specified.

ESTIMATED ERROR:

Soly: measurements were repeated several times (authors).

Temp: ±0.1°C (authors).

REFERENCES:

1. Karyakin, Ya. V.; Angelov, I. I. *Chistye khimicheskye reaktivy*, Moscow, 1955.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Potassium iodide; KI; [7681-11-0] (3) Water; H_2O [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M. *Farm. Zh. (Kiev)* 1960, *15(3)*, 21-4.
VARIABLES: Concentration of KI	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Concentration of KI	Solubility at 20°C	
Weight %	g/100 g water	10^2 mol kg^{-1} [a]
1.63	0.597	2.79
3.98	0.615	2.87
7.66	0.752	3.51
14.23	0.843	3.94

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A small excess of sulfacetamide was equilibrated for 8 h in a 50-ml test tube with 20 ml of aqueous KI soln. Aliquots were taken with a pipet fitted with a filter. Sulfacetamide was detd in the filtrate at 285 nm using a SF-4 spectophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was prepd from a purified Na salt by neutralizing it with equivalent quantity of aq HCl. The product was repeatedly washed with water and conformed to the requirements of the State Pharmacopeia VIII. KI was doubly crystd. Purity of the water was not specified.

ESTIMATED ERROR:

Soly: the accuracy corresponded to that of colorimetric detns (authors).

Temp: not specified.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Potassium thiocyanate; KSCN; [333-20-0] (3) Water; H_2O; [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M. *Farm. Zh. (Kiev)* 1960, *15(2)*, 21-4.
VARIABLES: Concentration of KSCN	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

Concentration of KSCN	Solubility at 20°C	
Weight %	g/100 g water	10^2 mol kg^{-1} [a]
0.96	0.582	2.72
2.37	0.700	3.27
4.63	0.796	3.72
8.85	1.096	5.12

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A small excess of sulfacetamide was equilibrated for 8 h in a 50-ml test tube with 20 ml of aqueous KSCN soln. Aliquots were taken with a pipet fitted with a filter. Sulfacetamide was detd in the filtrate at 285 nm using a SF-4 spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was prepd from a purified Na salt by neutralizing it with equivalent quantity of aq HCl. The product was repeatedly washed with water and conformed to the requirements of the State Pharmacopeia VIII. KSCN was doubly crystd.

Purity of the water was not specified.

ESTIMATED ERROR:

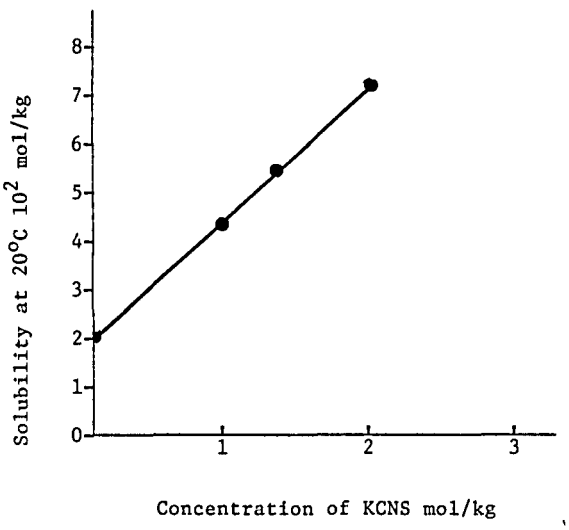
Soly: the accuracy corresponded to that of colorimetric detns (authors)

Temp: not specified.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)sulfonyl]-(sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Potassium thiocyanate; KCNS; [333-20-0] (3) Water; H_2O; [7732-18-5]	Likholet, N. M.; Gusyakov, V. P. *Med. Prom. SSSR* 1963, *17(5)*, 28-31.
VARIABLES: Concentration of KCNS	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Satd solns of sulfacetamide were prepd in 50-ml tightly closed ampuls in which 20 ml of a KCNS soln was placed and a small excess of sulfacetamide. The mixts were equilibrated at 20°C for 18 h. Aliquots were pipetted out through a filter, dild, and assayed spectrophotometrically at 285 nm on a SF-IV spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was purified by crystn. KCNS was purified by a recommended procedure (1). The source and purity of the materials were not specified.

ESTIMATED ERROR:

Soly: measurements were repeated several times (authors).

Temp: ±0.1°C (authors).

REFERENCES:

1. Karyakin, Ya. V.; Angelov, I. I. *Chistye khimicheskye reaktivy*, Moscow, 1955.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Phosphoric acid, monopotassium salt; KH_2PO_4; [7778-77-0] (3) Water; H_2O; [7732-18-5]	Krüger-Thiemer, E. *Arch. Dermatol. Syphilis* 1942, *183*, 90-116.
VARIABLES: One temperature: ca 20°C; one pH: 4.37	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

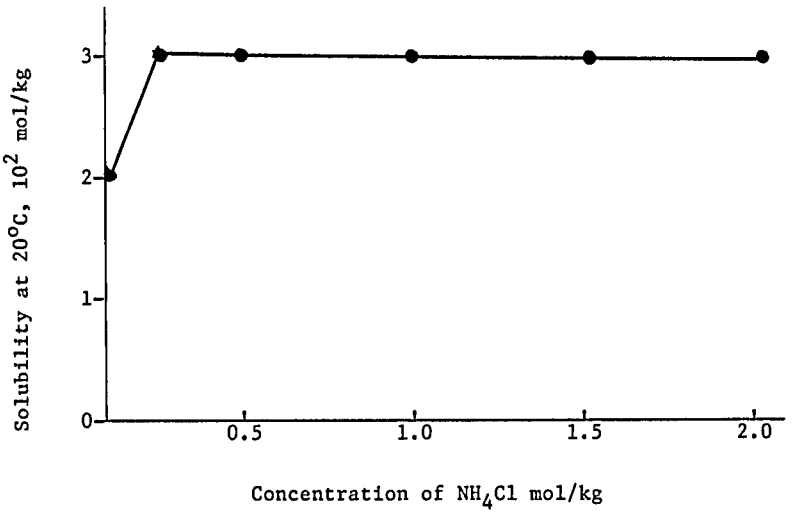
Solubility of sulfacetamide in a 0.735M (10%) KH_2PO_4 solution of pH 4.37, at room temperature (about 20°C), is 0.632 g% (2.95×10^{-2} mol dm^{-3} solution, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Sulfacetamide (0.5 g) was dissolved in the 0.735M (10%) KH_2PO_4 solution (pH 4.37) at room temp (about 20°C), shaken for 2 h at 20°C, and filtered. A 2 cm^3 aliquot was then withdrawn, cooled, 1 cm^3 of 2N HCl was added, and the sulfacetamide content was detd colorimetrically by the Marshall method modified by Kimmig (1) using an Autenrieth colorimeter. The pH was detd on an ultraionograph using a glass electrode.	Sulfacetamide was the product manufd by Schering AG under the name Albucid. The source and purity of the remaining materials was not specified.
	ESTIMATED ERROR: Soly: precision ± 5% (author). Temp: not specified. pH: ±0.05 pH unit (author).
	REFERENCES: 1. Kimmig, J. *Arch. Dermatol.* 1938, *176*, 722; *Erg. Hyg.* 1941, *24*, 398.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)sulfonyl]-(sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Ammonium chloride; NH_4Cl; [12125-02-9] (3) Water; H_2O; [7732-18-5]	Likholet, N. M.; Gusyakov, V. P. *Med. Prom. SSSR* 1963, *17(5)*, 28-31.
VARIABLES: Concentration of NH_4Cl	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Satd solns of sulfacetamide were prepd in 50-ml tightly closed ampuls in which 20 ml of a NH_4Cl soln was placed and a small excess of sulfacetamide. The mixts were equilibrated for 18 h at 20°C. Aliquots were pipetted out through a filter, dild, and assayed spectrophotometrically at 285 nm on a SF-IV spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was purified by crystn. NH_4Cl was purified by a recommended procedure (1). The source and purity of the materials were not specified.

ESTIMATED ERROR:

Soly: measurements were repeated several times (authors).

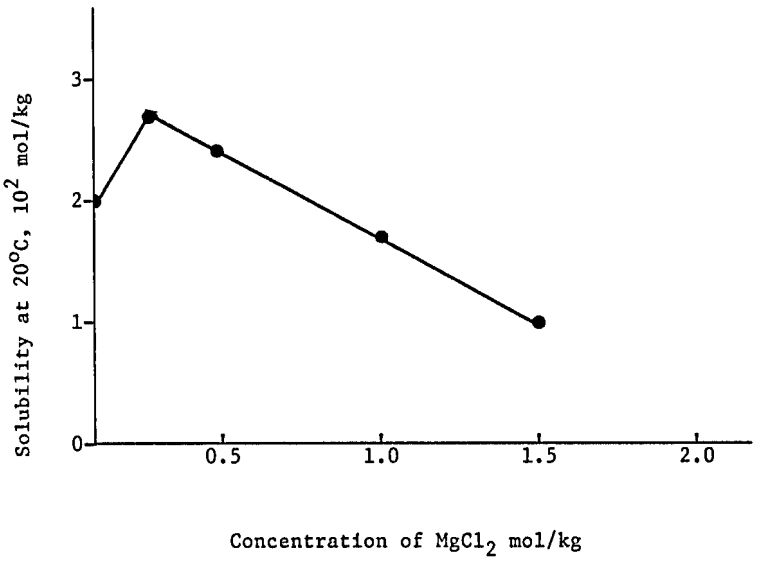
Temp: ±0.1°C (authors).

REFERENCES:

1. Karyakin, Ya. V.; Angelov, I. I. *Chistye khimicheskye reaktivy*, Moscow, 1955.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)sulfonyl]-(sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Magnesium chloride; $MgCl_2$; [7786-30-3] (3) Water; H_2O; [7732-18-5]	Likholet, N. M.; Gusyakov, V. P. *Med. Prom. SSSR* 1963, *17(5)*, 28-31.
VARIABLES: Concentration of $MgCl_2$	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Satd solns of sulfacetamide were prepd in 50-ml tightly closed ampuls in which 20 ml of a $MgCl_2$ soln was placed and a small excess of sulfacetamide. The mixts were equilibrated for 18 h at 20°C. Aliquots were pipetted out through a filter, dild, and assayed spectrophotometrically at 285 nm on a SF-IV spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was purified by crystn. $MgCl_2$ was purified by a recommended procedure (1). The source and purity of the materials were not specified.

ESTIMATED ERROR:

Soly: measurements were repeated several times (authors).

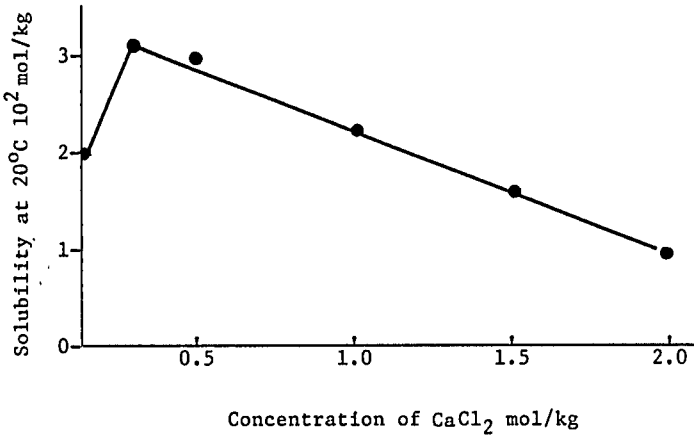
Temp: ±0.1°C (authors).

REFERENCES:

1. Karyakin, Ya. V.; Angelov, I. I. *Chistye khimicheskye reaktivy*, Moscow, 1955.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9]	Likholet, N. M.; Gusyakov, V. P. *Med. Prom. SSSR* 1963, *17(5)*, 28-31.
(2) Calcium chloride; $CaCl_2$; [10043-52-4]	
(3) Water; H_2O; [7732-18-5]	
VARIABLES: Concentration of $CaCl_2$	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Satd soln of sulfacetamide were prepd in 50-ml tightly closed ampuls in which 20 ml of a $CaCl_2$ soln was placed and a small excess of sulfacetamide. The mixts were equilibrated for 18 h at 20°C. Aliquots were pipetted out through a filter, dild, and assayed spectrophotometrically at 285 nm on a SF-IV spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was purified by crystn. $CaCl_2$ was purified by a recommended procedure (1). The source and purity of the materials were not specified.

ESTIMATED ERROR:

Soly: measurements were repeated several times (authors).

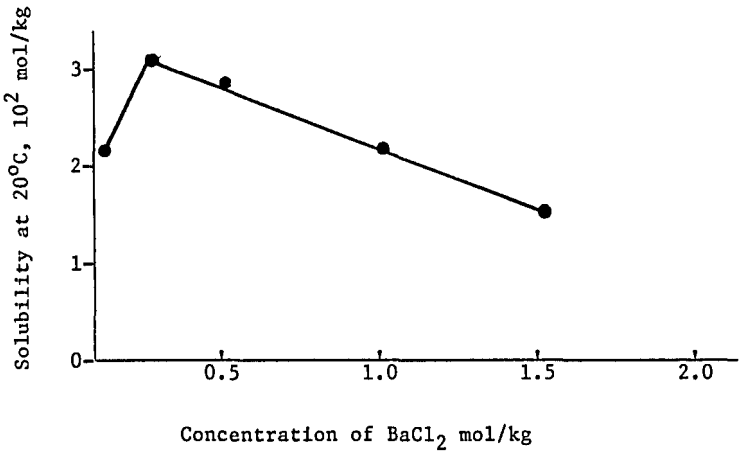
Temp: ±0.1°C (authors).

REFERENCES:

1. Karyakin, Ya. V.; Angelov, I. I. *Chistye Khimicheskye reaktivy*, Moscow, 1955.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Barium chloride; $BaCl_2$; [10361-37-2] (3) Water; H_2O; [7732-18-5]	Likholet, N. M.; Gusyakov, V. P. *Med. Prom. SSSR* 1963, *17(5)*, 28-31.
VARIABLES: Concentration of $BaCl_2$	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Satd solns of sulfacetamide were prepd in 50-ml tightly closed ampuls in which 20 ml of a $CaCl_2$ soln was placed and a small excess of sulfacetamide. The mixts were equilibrated for 18 h at 20°C. Aliquots were pipetted out through a filter, dild, and assayed spectrophotometrically at 285 nm on a SF-IV spectrophotometer.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was purified by crystn. $BaCl_2$ was purified by a recommended procedure (1). The source and purity of the materials were not specified.

ESTIMATED ERROR:

Soly: measurements were repeated several times (authors).

Temp: ±0.1°C (authors).

REFERENCES:

1. Karyakin, Ya. V.; Angelov, I. I. *Chistye khimicheskye reaktivy*, Moscow, 1955.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Phosphoric acid, monosodium salt; NaH_2PO_4; [7558-80-7] (3) Potassium chloride; KCl; [7447-40-7] (4) Water; H_2O; [7732-18-5]	Likhol'ot, N. M. *Farm. Zh. (Kiev)* 1965, *20(5)*, 44-6.
VARIABLES: Concentration of NaH_2PO_4 - KCl	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Concentration of NaH_2PO_4-KCl[a] mol/l	Solubility of sulfacetamide at 20°C g/100 ml	Solubility of sulfacetamide at 20°C 10^2 mol dm^{-3}[b]
0.088	0.602	2.05
0.112	0.597	2.03
0.139	0.597	2.03
0.165	0.597	2.03
0.182	0.596	2.03
0.185	0.596	2.03

[a] KCl was added in such amounts as to correct the ionic strength of solution.

[b] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

An earlier described method was employed (1) whereby a small excess of sulfacetamide was equilibrated with 20 ml of a NaH_2PO_4-KCl soln for 8 h in a 50-ml test tube. Aliquots were withdrawn through a filter and sulfacetamide was assayed bromatometrically.

SOURCE AND PURITY OF MATERIALS:

Nothing specified.

ESTIMATED ERROR:

Soly: not specified.

Temp: ±0.1°C (authors).

REFERENCES:

1. Gusyakov, V. P.; Likhol'ot, N. M. *Farm. Zh. (Kiev)* 1960, *15(8)*, 21.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Phosphoric acid, disodium salt; Na_2HPO_4; [7558-94-4] (3) Phosphoric acid, monopotassium salt; KH_2PO_4; [7778-77-0] (4) Water; H O; [7732-18-5]	Krüger-Thiemer, E. *Arch. Dermatol. Syphilis* 1942, *183*, 90-116.
VARIABLES: Temperature, pH	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

Composition of 1/15M phosphate buffer solutions			pH	Solubility			
				Room temp (ca 20°C)		37°C	
Na_2HPO_4	KH_2PO_4	%Content		g%	10^2 mol dm^{-3} solution[a]	g%	10^2 mol dm^{-3} solution[a]
1.0	99.0	0.91	4.944	0.830	3.874	-	-
10.0	90.0	0.91	5.906	0.909	4.242	1.220	5.694
61.1	38.9	0.93	7.005	1.632	7.617	1.770	8.261
9.5	0.5	0.733[b]	7.51	4.710	21.98	-	-
94.7	5.3	0.95	0.018	2.232	10.42	-	-

[a] Calculated by compiler.

[b] Molar content; 10% buffer solution.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Sulfacetamide (0.5 g) was dissolved in 10 cm^3 of a buffer soln, shaken for 2 h at 20°C (or left for 48 h at 37°C), and filtered at respective temp. A 1 cm^3 aliquot was then withdrawn, cooled, 1 cm^3 of 2N HCl was added, and the sulfacetamide content was detd colorimetrically by the Marshall method modified by Kimmig (1) using an Authenreith colorimeter. The pH values were detd on an ultraionograph using a glass electrode.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide was the product manufd by Schering AG under the name Albucid. The source and purity of the remaining materials was not specified.

ESTIMATED ERROR:

Soly: precision ±5% (author).
Temp: not specified.
pH: ±0.05 pH unit (author).

REFERENCES:

1. Kimmig, J. *Arch. Dermatol.* 1938, *176*, 722; *Erg. Hyg.* 1941, *24*, 398.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Phosphoric acid, disodium salt; Na_2HPO_4; [7558-94-4] (3) Phosphoric acid, monopotassium salt; KH_2PO_4; [7778-77-0] (4) Water; H_2O; [7732-18-5]	Langecker, H. *Arch. Exptl. Path. Pharmakol.* 1948, *205*, 291-301.
VARIABLES: pH	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

pH of the 1/15M phosphate buffer	Solubility at 37°C	
	mg%	10^2 mol dm^{-3} [a]
4.9	978	4.56
5.9	974	4.56
6.9	1607	7.50
7.5	2241	10.46

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

An excess of sulfacetamide was added to the buffer soln and boiled for 1 h in a sealed ampul followed by keeping the ampul at 37°C. Before assaying the solute was treated with a 2.6N NaOH soln (1) to cleave the acetyl group and the sulfanilamide was detd colorimetrically by the method of Bratton and Marshall (2) using a Havemann colorimeter (3), as well as by microanal detn of the solid residue.

SOURCE AND PURITY OF MATERIALS:

Source and purity of the materials was not specified.

ESTIMATED ERROR:

Nothing specified.

REFERENCES:

1. Scudi, J. V. *J. Lab. Clin. Med.* 1940, *25*, 404.
2. Bratton, A. G.; Marshall, E. K. *J. Biol. Chem.* 1939, *128*, 537.
3. Havemann, R. *Klin. Wochenschr.* 1940, p. 503.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Phosphoric acid, disodium salt; Na_2HPO_4; [7558-94-4] (3) Phosphoric acid, monopotassium salt; KH_2PO_4; [7778-77-0] (4) Water; H_2O; [7732-18-5]	Bandelin, F. J.; Malesh, W. *J. Am. Pharm. Assoc., Sci. Ed.* 1959, *48*, 177-81.
VARIABLES: pH	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in buffers of varying mixtures of $Na_2HPO_4 \cdot 7H_2O$ (71.6 g/l distilled water; 0.27 mol dm^{-3}, compiler) and KH_2PO_4 (36.3 g/l distilled water; 0.27 mol dm^{-3}, compiler) at 37°C

Initial pH	Solubility	
	mg/100 ml	mol dm^{-3} [a]
5.0	1250	0.0583
5.5	1350	0.0629
6.0	2150	0.100
6.5	3020	0.141
7.0	4400	0.205
7.5	15,000	0.699
8.0	41,000	1.911

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Solns were prepd by adding an excess of sulfacetamide to 10 ml of buffer soln at each pH level in 18 x 150-mm test tubes, stoppering the tubes, and placing them in a water bath at 37°C with gentle agitation for 24 h. The mixt was then filtered and a 1-ml aliquot was accurately pipetted into a volumetric flask for diln and analysis. The balance was retained for pH detn to ascertain any change in pH value. Sulfacetamide was assayed colorimetrically by the method of Bratton and Marshall as described in detail by Biamonte and Schneller (1). A standard curve was prepd using accurately prepd standard solutions.

SOURCE AND PURITY OF MATERIALS:

Neither source nor purity of the reagents were specified. Distilled water was used.

ESTIMATED ERROR:

Soly: av values of duplicate runs are reported (authors).

Temp and pH: not specified.

REFERENCES:

1. Biamonte, A. R.; Schneller, G. E. *J. Am. Pharm. Assoc., Sci. Ed.*, 1952, *41*, 341.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Phosphoric acid, disodium salt; Na_2HPO_4; [7558-94-4] (3) Phosphoric acid, monopotassium salt; KH_2PO_4; [7778-77-0] (4) Water; H_2O; [7732-18-5]	Yamazaki, M.; Aoki, M.; Kamada, A.; Yata, N. *Yakuzaigaku* 1967, *27(1)*, 37-40.
VARIABLES: One temperature: 30°C; one pH: 7.4	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in a phosphate buffer solution of pH 7.4[a] (μ = 0.17) at 30°C is 91.0 mmol/L (19.50 g dm^{-3}, compiler).

[a] At the end of experiment the pH was 5.6.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Sulfacetamide (0.5 g) was placed in an L-shaped tube together with 20 ml of a buffer soln. The mixt was shaken in a thermostat until equilibrium was attained. The sulfacetamide was then assayed in the supernatant spectrophotometrically at 545 nm on a Beckmann DU spectrophotometer. The results were taken from a calibration graph.	Nothing specified.
	ESTIMATED ERROR: Soly and pH: not specified. Temp: ±1°C (authors).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)sulfonyl]-(sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Phosphoric acid, disodium salt; Na_2HPO_4; [7558-94-4] (3) 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (citric acid); $C_6H_8O_7$; [77-92-91] (4) Water; H O; [7732-18-5]	Likhol'ot, N. M. *Farm. Zh. (Kiev)* 1965, *20(5)*, 44-6.
VARIABLES: pH	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

pH of McIlvaine's buffer solution	Solubility at 20°C	
	g/100 ml	10^2 mol dm^{-3} [a]
4.1	0.627	2.93
5.1	0.884	4.13
5.9	1.605	7.49
6.5	2.502	11.68
6.9	3.140	14.66
7.5	3.585	16.73

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

An earlier described method was employed (1) whereby a small excess of sulfacetamide was equilibrated with 20 ml of the McIlvaine's buffer soln for 8 hr in a 50-ml test tube. Aliquots were removed through a filter and sulfacetamide was assayed bromatometrically.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide: not specified. McIlvaine's buffer solns were prepd from a 0.2M Na_2HPO_4 and a 0.1M citric acid solns. Source and purity of the buffer components were not specified.

ESTIMATED ERROR:

Soly: not specified.
Temp: ±0.1°C (authors).
pH: not specified.

REFERENCES:

1. Gusyakov, V. P.; Likhol'ot, N. M. *Farm. Zh. (Kiev)* 1960, *15(8)*, 21.

COMPONENTS:

(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide) $C_8H_{10}N_2O_3S$: [144-80-9]
(2) Calcium chloride; $CaCl_2$; [10043-52-4]
(3) Magnesium chloride; $MgCl_2$; [7786-30-3]
(4) Phosphoric acid, monoammonium salt; $NH_4H_2PO_4$; [7722076-1]
(5) Potassium chloride; KCl; [7447-14-5]
(6) Sodium chloride; NaCl; [7647-14-5]
(7) Urea; CH_4N_2O; [57-13-6]
(8) Water; H_2O; [7732-18-5]

ORIGINAL MEASUREMENTS:

Bandelin, F. J.; Malesh, W.

J. Am. Pharm. Assoc., Sci. Ed. 1959, *48*, 177-81.

PREPARED BY:

R. Piekos

VARIABLES:

pH at 37°C

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in a solution containing $CaCl_2$ 0.143, $MgCl_2$ 0.121, $NH_4H_2PO_4$ 0.300, KCl 1.660, NaCl 2.950 and urea 20 g/dm^3 (synthetic urine, Mosher Vehicle) at 37°C

Equilibrium pH	Solubility	
	mg/100 ml	mol/dm^3[a]
4.5	1500	0.0699
5.0	1950	0.0909
5.5	3150	0.1468
5.8	6000	0.2797
6.2	15,000	0.6992
6.6	50,000	2.3307

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Excess acetamide was added to aliquots of synthetic urine solns and 1% H_3PO_4 or 1% NaOH solns were used to adjust the pH to the required value. The solns were agitated for 24 h with addn of acid or base to keep them at the desired pH level until equilibrium in pH and concn was attained. Then the solns were filtered and in aliquots acetamide was assayed spectrophotometrically by the method described by Biamonte and Schneller (1). Before detn the soln was refluxed for 1 h with 5% H_2SO_4 to liberate the free amino compd.

SOURCE AND PURITY OF MATERIALS:

Nothing specified.

ESTIMATED ERROR:

Soly: average values of 2 detns were given.
Temp: not specified.
pH: not specified.

REFERENCES:

1. Biamonte, A. R.; Schneller, G. E., *J. Am. Pharm. Assoc., Sci. Ed.* 1952, *41*, 341.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Ethanol; C_2H_6O; [64-17-5] (3) Water; H_2O; [7732-18-5]	Shkadova, A. I. *Farm. Zh. (Kiev)* 1969, *24(3)*, 39-41.
VARIABLES: Concentration of ethanol	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Concentration of ethanol		Solubility at 20°C	
mole %	weight %	10^2 mol kg^{-1}	g/100 g[a]
0	0	3.02	0.647
10	22.14	11.12	2.383
20	39.01	26.38	5.652
30	52.31	41.59	8.911
40	63.04	58.60	12.555
50	71.90	59.98	12.851
60	79.33	62.18	13.323
70	85.65	60.03	12.862
80	91.10	42.80	9.170
90	95.83	21.21	4.544

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Sulfacetamide was equilibrated with the solvent in a water thermostat at 20±0.1°C. The concn of sulfacetamide was detd by alkalimetric titration.	Sulfacetamide was prepd from its Na salt by addn of equivalent quantity of 0.1N HCl. The product was washed with water and dried. The EtOH - water mixts were prepd from abs EtOH (purity and source not specified) and distd water.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.1°C (author).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Formamide; CH_3NO; [75-12-7] (3) Water; H_2O; [7732-18-5]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38*, 1342-4.
VARIABLES: Concentration of formamide	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

$$-k_s = \log \frac{L_{H_2O}}{L_s\ c_s} = 0.12\ \text{l/mol},$$

where L_{H_2O} (0.318_8 g/50 ml = $2.975_8 \times 10^{-2}$ mol dm^{-3}, compiler) and L_s are solubilities of sulfacetamide in water and in aqueous formamide solutions, respectively, and c_s is the concentration of formamide.

L_s values were supplied by the author in personal communication and are shown below.

Concentration of formamide	L_s at 20°C	
mol/l	g/100 ml	10^2 mol dm^{-3} [a]
0.200	0.700	3.27
0.400	0.686	3.20
0.600	0.776	3.62

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The solns were equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed by differential gravimetric analysis. No details were given.	The source and purity of sulfacetamide was not specified. Anal reagent grade formamide (source not specified) dried over mol sieve was used. Purity of the water was not specified.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.05°C (author).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Acetamide; C_2H_5NO; [60-35-5] (3) Water; H_2O; [7732-18-5]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38*, 1342-4.
VARIABLES: Concentration of acetamide	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

$$-k_s = \log\frac{L_{H_2O}}{L_s\, c_s} = 0.15 \text{ 1/mol},$$

where L_{H_2O} (0.218_8 g/50 ml = $2.975_8 \times 10^{-2}$ mol dm^{-3}, compiler) and L_s are solubilities of sulfacetamide in water and in aqueous acetamide solutions, respectively, and c_s is the concentration of acetamide.

L_s values were supplied by the author in personal communication and are shown below.

Concentration of acetamide	L_s at 20°C	
mol/l	g/100 ml	10^2 mol dm^{-3} [a]
0.300	0.676	3.16
0.600	0.802	3.74
0.900	0.898	4.20
1.200	0.998	4.66

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The solns were equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed by differential gravimetric analysis. No details were given.	The source and purity of sulfacetamide was not specified. Anal reagent grade acetamide (source not specified) dried over mol sieve was used. Purity of the water was not specified.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.05°C (author).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Ethanethioamide; C_2H_5NS; [62-55-5] (3) Water; H_2O; [7732-18-5]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38*, 1342-4.
VARIABLES: Concentration of ethanethioamide	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

$$-k_s = \log\frac{L_{H_2O}}{L_s\ c_s} = 0.34\ 1/\text{mol},$$

where L_{H_2O} (0.318_8 g/50 ml $2.975_8 \times 10^{-2}$ mol dm^{-3}, compiler) and L_s are solubilities of sulfacetamide in water and in aqueous ethanethioamide solutions, respectively, and c_s is the concentration of ethanethioamide.

L_s values were supplied by the author in personal communication and are shown below.

Concentration of ethanethioamide	L_s at 20°C	
mol/l	g/100 ml	10^2 mol dm^{-3} [a]
0.050	0.672	3.14
0.150	0.694	3.24
0.200	0.752	3.51
0.400	0.886	4.14
0.600	1.030	4.81

[a] Calculated by compiler

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The solns were equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed bv differential gravimetric analysis. No details were given.	The source and purity of sulfacetamide and water water was not specified. Anal reagent grade ethanethiomamide (source not specified) dried over mol sieve was used.
	ESTIMATED ERROR: Soly: Not specified. Temp: ±0.05°C (author).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Propanamide; C_3H_7NO; [79-05-0] (3) Water; H_2O; [7732-18-5]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38*, 1342-4.
VARIABLES:	**PREPARED BY:**
Concentration of propanamide	R. Piekos

EXPERIMENTAL VALUES:

$$-k_s = \log\frac{L_{H_2O}}{L_s\ c_s} = 0.26\ \text{l/mol},$$

where L_{H_2O} (0.318_8 g/50 ml = $2.975_8 \times 10^{-2}$ mol dm^{-3}, compiler) and L_s are solubilities of sulfacetamide in water and in aqueous propanamide solutions, respectively, and c_s is the concentration of propanamide.

L_s values were supplied by the author in personal communication and are shown below.

Concentration of propanamide mol/l	L_s at 20°C	
	g/100 ml	10^2 mol dm^{-3} [a]
0.200	0.694	2.24
0.400	0.772	3.60
0.600	0.870	4.06
0.800	0.898	4.20
1.000	1.064	4.97

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The solns were equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed by differential gravimetric analysis. No details were given.

SOURCE AND PURITY OF MATERIALS:

The source and purity of sulfacetamide and water was not specified.

Anal reagent grade propanamide (source not specified) dried over mol sieve was used.

ESTIMATED ERROR:

Soly: not specified.

Temp: ±0.05°C (author).

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Butanamide; C_4H_9NO; [541-35-5] (3) Water; H_2O; [7732-18-5]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38*, 1342-4.
VARIABLES:	**PREPARED BY:**
Concentration of butanamide	R. Piekos

EXPERIMENTAL VALUES:

$$-k_s = \log \frac{L_{H_2O}}{L_s \; c_s} = 0.30 \text{ l/mol},$$

where L_{H_2O} (0.318 g/50 ml ≈ 2.975 x 10^{-2} mol dm^{-3}, compiler) and L_s are solubilities of sulfacetamide in water and in aqueous butanamide solutions, respectively, and c_s is the concentration of propanamide.

L_s values were supplied by the author in personal communication and are shown below.

Concentration of butanamide	L_s at 20°C	
mol/l	g/100 ml	10^2 mol dm^{-3} [a]
0.200	0.710	3.31
0.400	0.798	3.72
0.600	0.934	3.36
0.800	1.080	5.04
1.000	1.204	5.62

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The solns were equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed by differential gravimetric analysis. No details were given.	The source and purity of sulfacetamide and water was not specified. Anal reagent grade butanamide (source not specified) dried over mol sieve was used.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.05°C (author).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Formamide, N,N-dimethyl-; C_3H_7NO; [68-12-2] (3) Water; H_2O; [7732-18-5]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38*, 1342-4.
VARIABLES:	PREPARED BY:
Concentration of N,N-dimethylformamide	R. Piekos

EXPERIMENTAL VALUES:

$$-k_s = \log \frac{L_{H_2O}}{L_s\ c_s} = 0.32\ 1/\text{mol},$$

where L_{H_2O} (0.318 g/50 ml = 2.975 x 10^{-2} mol dm^{-3}, compiler) and L_s are solubilities of sulfacetamide in water and in aqueous N,N-dimethylformamide solutions, respectively, and c_s is the concentration of N,N-dimethylformamide. L_s values were supplied by the author in personal communication and are shown below.

Concentration of N,N-dimethylformamide	L_s at 20°C	
mol/l	g/100 ml	10^2 mol dm^{-3} [a]
0.300	0.828	3.86
0.600	1.004	4.69
0.900	1.312	6.12

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The solns were equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed by differential gravimetric analysis. No details were given.

SOURCE AND PURITY OF MATERIALS:

The source and purity of sulfacetamide and water was not specified. Anal reagent grade N,N-dimethylformamide (source not specified) dried over mol sieve was used.

ESTIMATED ERROR:

Soly: not specified.

Temp: ±0.05°C (author).

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38*, 1342-4.
(2) Adetamide, N-methyl-; C_3H_7NO; [79-16-3]	
(3) Water; H_2O; [7732-18-5]	
VARIABLES:	**PREPARED BY:**
Concentration of N-methylacetamide	R. Piekos

EXPERIMENTAL VALUES:

$$-k_s = \log \frac{L_{H_2O}}{L_s \; c_s} = 0.25 \text{ l/mol},$$

where L_{H_2O} (0.318 g/50 ml = 2.975 x 10^{-2} mol dm^{-3}, compiler) and L_s are solubilities of sulfacetamide in water and in aqueous N-methylacetamide solutions, respectively and c_s is the concentration of N-methylacetamide. L_s values were supplied by the author in personal communication and are shown below.

Concentration of N-methylacetamide	L_s at 20°C	
mol/l	g/100 ml	10^2 mol dm^{-3} [a]
0.300	0.836	3.90
0.600	0.944	4.41
0.900	1.088	5.08

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The solns were equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed by differential gravimetric analysis. No details were given.	The source and purity of sulfacetamide and water was not specified. Anal reagent grade N-methylacetamide (source not specified) dried over mol sieve was used.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.05°C (author).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetanide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Acetamide, N,N-dimethyl-; C_4H_9NO; [127-19-5] (3) Water; H_2O; [7732-18-5]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38*, 1542 4.
VARIABLES: Concentration of N,N-dimethylacetamide	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

$$-k_s = \log \frac{L_{H_2O}}{L_s\, c_s} = 0.41 \text{ l/mol},$$

where L_{H_2O} (0.318 g/50 ml = 2.975 x 10^{-2} mol dm^{-3}, compiler) and L_s are solubilities of sulfacetamide in water and in aqueous N,N-dimethylacetamide solutions, respectively, and c_s is the concentration of N,N-dimethylacetamide.

L_s values were supplied by the author in personal communication and are shown below.

Concentration of N,N-dimethylacetamide	L_s at 20°C	
mol/l	g/100 ml	10^2 mol dm^{-3} [a]
0.400	0.926	4.32
0.500	0.760	3.55
0.600	1.080	5.04
0.800	1.254	5.85
1.000	1.500	7.00

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The solns were equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed by differential gravimetric analysis. No details were given

SOURCE AND PURITY OF MATERIALS:

The source and purity of sulfacetamide and water was not specified.
Anal reagent grade N,N-dimethylacetamide (source not specified) dried over mol sieve was used.

ESTIMATED ERROR:

Soly: not specified.
Temp: ±0.05°C (author).

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) 3-Pyridinecarboxamide; $C_6H_6N_2O$; [98-92-0] (3) Water; H_2O; [7732-18-5]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38*, 1342-4.
VARIABLES: Concentration of 3-pyridine-carboxamide	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

$$-k_s = \log \frac{L_{H_2O}}{l_s \; c_s} = 0.88 \text{ l/mol},$$

where L_{H_2O} (0.318 g/50 ml = 2.975 x 10^{-2} mol dm^{-3}, compiler) and L_s are solubilities of sulfacetamide in water and in aqueous 3-pyridinecarboxamide solution, respectively, and c_s is the concentration of 3-pyridinecarboxamide. L_s values were supplied by the author in personal communication and are shown below.

Concentration of 3-pyridinecarboxamide	L_s at 20°C	
mol/l	g/100 ml	10^2 mol dm^{-3} [a]
0.100	0.854	3.99
0.150	0.948	4.42
0.200	1.000	4.67
0.400	1.424	6.65
0.600	1.860	8.68

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The solns were equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed by differential gravimetric analysis. No details were given.	The source and purity of sulfacetamide and water was not specified. Anal reagent grade 3-pyridinecarboxamide (source not specified) dried over mol sieve was used.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.05°C (author).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) 3-Pyridinecarboxamide, N,N-diethyl- (nicetamide) $C_{10}H_{14}N_2O$; [59-26-7] (3) Water; H_2O; [7732-18-5]	Rohdewald, P. *Pharm. Ztg.* 1971, *No. 38*, 1342-4.
VARIABLES:	PREPARED BY:
Concentration of nicetamide	R. Piekos

EXPERIMENTAL VALUES:

$$-k_s = \log \frac{L_{H_2O}}{L_s\ c_s} = 0.94 \text{ l/mol},$$

where L_{H_2O} (0.318 g/50 ml = 2.975 x 10^{-2} mol dm^{-3}, compiler) and L_s are solubilities of sulfacetamide in water and in aqeuous nicetamide solutions, respectively, and c_s is the concentration of nicetamide.

L_s values were supplied by the author in personal communication and are shown below.

Concentration of nicetamide	L_s at 20°C	
mol/l	g/100 ml	10^2 mol dm^{-3} [a]
0.400	1.496	6.982
0.600	2.108	9.838
0.800	3.086	14.40
1.000	4.278	20.00

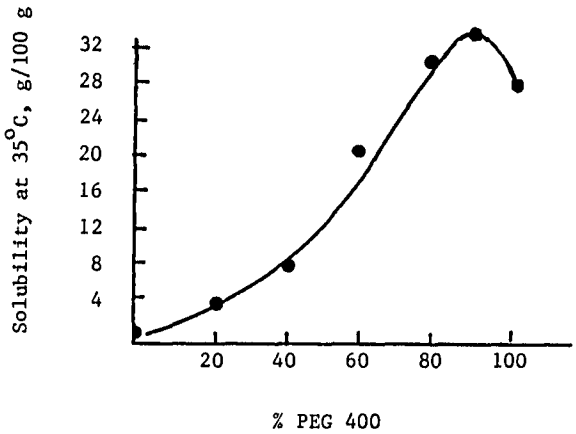
[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The solns were equilibrated by agitation for 2 h at 20°C and the sulfacetamide was assayed by differential gravimetric analysis. No details were given.	The source and purity of sulfacetamide and water was not specified. Anal reagent grade nicetamide (source not specified) dried over mol sieve was used.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.05°C (author).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Poly(oxy-1,2-ethanediyl), α-hydro--ω-hydroxy (PEG 400); $(C_2H_4O)_nH_2O$; [25322-68-3] 400 (3) Water; H_2O; [7732-18-5]	Khawam, M. N.; Yousef, R. T.; Czetach-Lindenwald, H. *Sci. Pharm.* 1966, *34*, 209-13.
VARIABLES: Concentration of PEG 400	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

An earlier described method was employed (1) whereby a 100-ml conical flask contg PEG 400 soln was placed in a drying cabinet at 35°C and an excess of sulfacetamide was added under stirring for 1 h. After 12 h the soln was filtered and decanted and the solute was assayed in the filtrate spectrophotometrically using a Unicam SP 500 spectrophotometer and 1-ml quartz cuvets. Results were taken from a calibration graph.

SOURCE AND PURITY OF MATERIALS:

Neither source nor purity of sulfacetamide and water was specified.

PEG 400 was a product of Farbwerke Hoechst (purity not specified).

ESTIMATED ERROR:

Nothing specified.

REFERENCES:

1. Khawam, M. N.; Tawashi, R.; Czetsch-Lindenwald, H. v. *Sci. Pharm.* 1965, *33*, 90.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (Sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (PEG 600); $(C_2H_4O)_nH_2O$; [25322-68-3] 600 (3) Water; H_2O; [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M.; Kutna, I. M. *Farm. Zh. (Kiev)* 1968, *23(6)* 56-61.
VARIABLES: One temperature: 21-25°C	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in a 5% (by weight) aqueous α-hydro-ω-hydroxy-poly(oxy-1,2-ethanediyl) 600 at room temperature (21-25°C) is 0.852 g/100 ml (3.98×10^{-2} mol dm^{-3}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A small excess of sulfacetamide was added to a 5% (by wt) aq PEG 600 soln, the mixture was sealed in an ampul and agitated for 24 h (1). The concn of sulfacetamide was detd colorimetrically (2).

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide: neither source nor purity was specified. PEG 600 was of the Austrian or West German origin. Its purity was not specified. Purity of the water was not specified.

ESTIMATED ERROR:

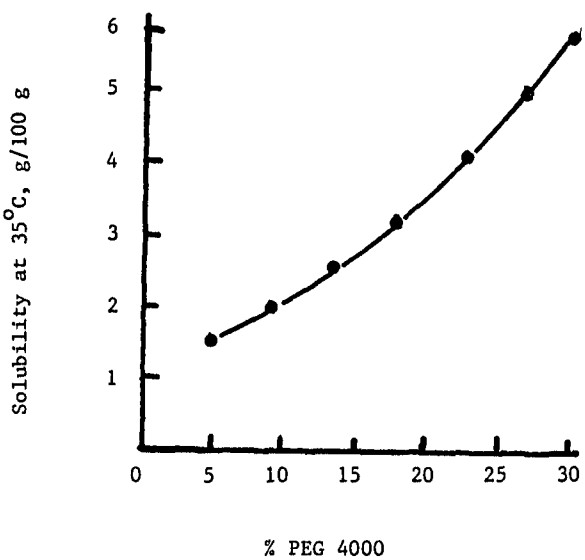
Nothing specified.

REFERENCES:

1. Gusyakov, V. P.; Likhol'ot, N. M.; Kuta, I. M. *Farm. Zh. (Kiev)* 1967, *22(3)*, 34.
2. Predchetenskii, B. E.; Borovskaya, V. M.; Morgolina, L. T. *Laboratornye metody issledovaniya, Medgiz, Moscow* 1950, *p. 371.*

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide; $C_8H_{10}N_2O_3S$; [144-80-9] (3) Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (PEG 4000); $(C_2H_4O)_nH_2O$; [25322-68-3] 4000 (3) Water; H_2O; [7732-18-5]	Khawam, M. N.; Yousef, R. T.; Czetsch-Lindenwald, H. *Sci. Pharm.* 1966, *34*, 209-13.
VARIABLES: Concentration of PEG 4000	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
An earlier described method was employed (1) whereby a 100-ml conical flask contg a PEG 4000 soln was placed in a drying cabinet at 35°C and an excess of sulfacetamide was added under stirring for 1 h. After 12 h the soln was filtered or decanted and the solute was assayed in the filtrate spectrophotometrically using a Unicam SP 500 spectrophotometer and 1-ml quartz cuvets. Results were taken from a calibration graph.	Neither source nor purity of sulfacetamide and water were specified. PEG 4000 was a product of Farbwerke Hoechst (purity not specified).
	ESTIMATED ERROR: Nothing specified.
	REFERENCES: 1. Khawam, M. N.; Tawashi, R.; Czetsch-Lindenwald, H. v. *Sci. Pharm.* 1965, *33*, 90.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (PEG 4000); $(C_2H_4O)_nH_2O$; [25322-68-3]4000 (3) Water; H_2O; [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M.; Kutna, I.M. *Farm. Zh. (Kiev)* 1968, *23(6)*, 56-61.
VARIABLES: One temperature: 21-25°C	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in a 5% (by weight) aqueous α-hydro-ω-hydroxy-poly(oxy-1,2-ethanediyl) 4000 at room temperature (21-25°C is 0.852 g/100 ml (3.98×10^{-2} dm^{-3}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A small excess of sulfacetamide was added to a 5% (by wt) aq PEG 4000 soln, the mixture was sealed in an ampul and agitated for 25 h (1).

The concn of sulfacetamide was detd colorimetrically (2).

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide: neither source nor purity was specified.

PEG 4000 was of the Austrian or West German origin. Its purity was not specified.

Purity of the water was not specified.

ESTIMATED ERROR:

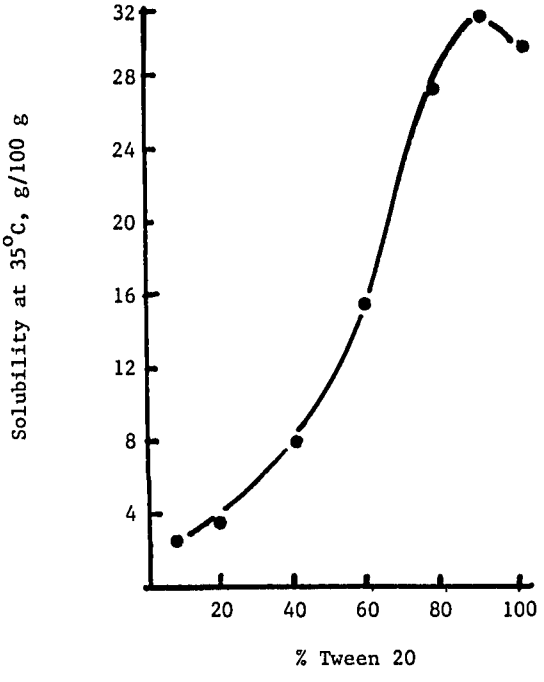
Nothing specified.

REFERENCES:

1. Gusyakov, V. P.; Likhol'ot, N. M.; Kutna, I. M. *Farm. Zh. (Kiev)* 1967, *22(3)*, 34.
2. Predchetenskii, B. E.; Borovskaya, V. M.; Morgolina, L. T. *Laboratornye metody issledovaniya, Medgiz, Moscow* 1950, *p.* 371.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl] (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9]	Khawam, M. N.; Yousef, R. T.; Czetsch-Lindenwald, H. *Sci. Pharm.* 1966, *34*, 209-13.
(2) Sorbitan monolaurate, polyoxyethylene derivatives (Tween 20); [9005-64-5]	
(3) Water; H_2O; [7732-18-5]	
VARIABLES:	**PREPARED BY:**
Concentration of Tween 20	R. Piekos

EXPERIMENTAL VALUES:



AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

An earlier described method was employed (1) whereby a 100-ml conical flask contg a Tween 20 soln was placed in a drying cabinet at 35°C and an excess of sulfacetamide was added under stirring for 1 h. After 12 h the soln was filtered or decanted and the solute was assayed in the filtrate spectrophotometrically using a Unicam SP 500 spectrophotometer and 1-ml quartz cuvets. Results were taken from a calibration graph.

SOURCE AND PURITY OF MATERIALS:

Neither source nor purity of sulfacetamide and water were reported.

Tween 20 was supplied by Atlas-Goldschmidt A. G., Essen (purity not specified).

ESTIMATED ERROR:

Nothing specified.

REFERENCES:

1. Khawam, M. N.; Tawashi, R.; Czetsch-Lindenwald, H. v. *Sci. Pharm.* 1965, *33*, 90.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Sorbitan monolaurate, polyoxyethylene derivatives (Tween 20); [9005-64-5] (3) Water; H_2O; [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M.; Kutna, I. M. *Farm. Zh. (Kiev)* 1967, *22(3)* 34-9.
VARIABLES: One temperature: 20°C	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

$$S/S_o = 1.6 \text{ at } 20^\circ C$$

where S is the solubility of sulfacetamide in a 2% by weight aqueous Tween 20 solution, and

S_o is the solubility of sulfacetamide in water (0.50 g/100 ml).

Hence S = 0.80 g/100 ml (3.7×10^{-2} mol dm^{-3}) - compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
An excess of sulfacetamide in a 2% by wt aq Tween 20 soln was equilibrated for 24 h in an ampul immersed in a water thermostat. Aliquots of the satd soln were withdrawn through a filter and the sulfacetamide content was assayed in the filtrate photometrically.	Sulfacetamide conformed to the requirements of the State Pharmacopeia IX. Tween 20 was a product of Gee Lawson, England. Purity of the water was not specified.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.1°C (authors).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl) sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Sorbitan monopalmitate, polyoxyethylene derivatives (Tween 40); [9005-66-7] (3) Water; H_2O; [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M.; Kutna, I. M. *Farm. Zh. (Kiev)* 1967, *22(3)*, 34-9.
VARIABLES:	PREPARED BY:
One temperature: 20°C	R. Piekos

EXPERIMENTAL VALUES:

$$S/S_o = 1.72 \text{ at } 20^\circ C$$

where S is the solubility of sulfacetamide in a 2% by weight aqueous Tween 40 solution, and

S_o is the solubility of sulfacetamide in water (0.50 g/100 ml).

Hence S = 0.86 g/100 ml (4.0×10^{-2} mol dm^{-3}) - compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
An excess of sulfacetamide in a 2% by wt aq Tween 40 soln was equilibrated for 24 h in an ampul immersed in a water thermostat. Aliquots of the satd soln were withdrawn through a filter and the sulfacetamide content was assayed in the filtrate photometrically.	Sulfacetamide conformed to the requirements of the State Pharmacopeia IX. Tween 40 was a product of Gee Lawson, England. Purity of the water was not specified.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.1°C (authors).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-8] (2) Sorbitan monooleate,polyoxyethylene derivatives (Tween 80); [9005-65-6] (3) Water; H_2O; [7732-18-5]	Gusyakov, V. P.; Likhol'ot, N. M.; Kutna, I. M. *Farm. Zh. (Kiev)* 1967, *22(3)*, 34-9.
VARIABLES: One temperature: 20°C	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

$$S/S_o = 1.7 \text{ at } 20^\circ C$$

where S is the solubility of sulfacetamide in a 2% by weight aqueous Tween 80 solution, and

S_o is the solubility of sulfacetamide in water (0.50 g/100 ml).

Hence S = 0.85 g/100 ml (4.0×10^{-2} mol dm^{-3}) - compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
An excess of sulfacetamide in a 2% by wt aq Twen 80 soln was equilibrated for 24 h in an ampul immersed in a water thermostat. Aliquots of the satd soln were withdrawn through a filter and the sulfacetamide content was assayed in the filtrate photometrically.	Sulfacetamide conformed to the requirements of the State Pharmacopeia IX. Tween 80 was a product of Gee Lawson, England. Purity of the water was not specified.
	ESTIMATED ERROR: Soly: not specified. Temp: ±0.1°C (authors).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) White petrolatum (liquid petrolatum)	Whitworth, C. W.; Becker, C. H. *J. Pharm. Sci.* 1965, *54(4)*, 569-73.
VARIABLES: One temperature: 37.5°C	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in white petrolatum (liquid petrolatum) at 37.5°C is 0.089 mg% (4.1×10^{-6} mol dm^{-3} solution, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A satd soln of sulfacetamide in liquid petrolatum was made and filtered carefully at a const temp to remove suspended particles. A portion of the soln was shaken for 4 h with 10 ml of EtOH. The alcoholic layer was centrifuged for 30 min. Aliquot portions of the alcoholic solns were allowed to evap to dryness, a trichloroacetic acid soln added, and subsequently the Marshall reagents. From the intensity of the color developed it was impossible to det the amt of the drug extd by the process utilized. A Klett-Summerson colorimeter with a No 54 filter was employed to det the color intensity, which was compared to that of standard solns.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide (N.F. grade) was from Ruger Chemical Co., Inc.

White petrolatum (liquid petrolatum) (U.S.P. grade) was from Fisher Scientific Co.

ESTIMATED ERROR:

Soly: not specified.

Temp: ±1°C (authors).

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$;[144-80-9] (2) Sorbitan, (Z)-9-octadecenoate (2:3) (Arlacel 83); [8007-43-0] (3) White petrolatum (liquid petrolatum)	Whitworth, C. W.; Becker, C. H. *J. Pharm. Sci.* 1965, *54(4)*, 569-73
VARIABLES: Concentration of Arlacel 83	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

Concentration of Arlacel 83 %	Solubility at 37.5°C	
	mg%	10^5 mol dm^{-3} soln[a]
1	0.150	0.700
5	0.906	4.22
10	1.761	8.21

[a] Calculated by compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A satd soln of sulfacetamide in the solvent was made and filtered carefully at a const temp to remove all suspended particles. A 5-ml portion of the soln was shaken for 4 h with 100 ml of EtOH. The alcoholic layer was centrifuged for 30 min. Aliquot portions of the alcoholic solns were allowed to evap to dryness, a trichloroacetic acid soln was added, and subsequently the Marshall reagents. From the intensity of the color developed it was possible to det the amt of the drug extd by the process utilized. A Klett-Summerson colorimeter with a No 54 filter was employed to det the color intensity, which was compared to that of standard solns.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide (N.F. grade) was from Ruger Chemical Co, Inc.

Arlacel 83 (Lot No 129) was from Atlas Powder Co. (Purity not specified).

White petrolatum (U.S.P. grade) was from Fisher Scientific Co.

ESTIMATED ERROR:

Soly: not specified.

Temp: ±1°C (authors).

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide) $C_8H_{10}N_2O_3S$; [144-80-9] (2) Cottonseed oil	Whitworth, C. W.; Becker, C. H. *J. Pharm. Sci.* 1965, *54(4)*, 569-73.
VARIABLES: One temperature: 37.5°C	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in cottonseed oil at 37.5°C is 4.734 mg% (2.212×10^{-4} mol dm^{-3} solution, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A satd soln of sulfacetamide in cottonseed oil was made and filtered carefully at a const temp to remove suspended particles. A portion of the soln was shaken for 4 h with 100 ml of EtOH. The alcoholic layer was centrifuged for 30 min. Aliquot portions of the alcoholic solns were allowed to evap to dryness, a trichloroacetic acid soln added, and subsequently the Marshall reagents. From the intensity of the color develped it was possible to det the amt of the drug extd by the process utilized. A Klett-Summerson colorimeter with a No 54 filter was employed to det the color intensity, which was compared to that of standard solns.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide (N.F. grade) was from Ruger Chemical Co., Inc.

Neither source nor purity of the cottonseed oil was specified.

ESTIMATED ERROR:

Soly: not specified.

Temp: ±1°C (authors).

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Cottonseed oil (3) Sorbitan, (Z)-9-octadecenoate (2:3) (Arlacel 83); [8007-43-0]	Whitworth, C. W.; Becker, C. H. *J. Pharm. Sci.* 1965, *54(4)*, 569-73.
VARIABLES:	PREPARED BY:
Concentration of Arlacel 83	R. Piekos

EXPERIMENTAL VALUES:

Concentration of Arlacel 83 %	Solubility at 37.5°C	
	mg%	10^4 mol dm^{-3} soln[a]
1	5.675	2.648
5	6.950	3.244
10	8.45	3.94

[a] Calculated by compiler

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A satd soln of sulfacetamide in the solvent was made and filtered carefully at a const temp to remove all suspended matter. A 5-ml portion of the soln was shaken for 4 h with 100 ml of EtOH. The alcoholic layer was centrifuged for 30 min. Aliquot portions of the alcoholic solns were allowed to evap to dryness, a trichloroacetic acid soln was added, and subsequently the Marshall reagents. From the intensity of the color developed it was possible to det the amt of the drug extd by the process utilized. A Klett-Summerson colorimeter with a No 54 filter was employed to det the color intensity, which was compared to that of standard solns.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide (N.F. grade) was from Ruger Chemical Co., Inc.

Neither source nor purity of the cottonseed oil was specified.

Arlacel 83 (Lot No 129) was from Atlas Powder Co. (purity not specified).

ESTIMATED ERROR:

Soly: not specified.

Temp: ±1°C (authors).

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Methane, trichloro- (chloroform); $CHCl_3$; [67-66-3]	Yamazaki, M.; Aoki, M.; Kamada, A.; Yata, N. *Yakuzaigaku* 1967, *27(1)*, 37-40.
VARIABLES:	**PREPARED BY:**
One temperature: 30°C	R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in chloroform at 30°C is 3.60 mmol/L (0.77 g dm^{-3}, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Sulfacetamide (0.5 g) was placed in an L-shaped tube together with 20 ml of chloroform. The mixt was shaken in a thermostat until equilibrium was attained. The sulfacetamide was then assayed in the supernatant spectrophotometrically at 545 nm on a Beckmann DU spectrophotometer. The results were taken from a calibration graph.	Nothing specified.
	ESTIMATED ERROR: Soly: not specified. Temp: ±1°C (authors).
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) 2-Propanone (acetone); C_3H_6O; [67-64-1]	Gutierrez, F. H. *Anales fis. quim. (Madrid)* 1945, *41*, 537-60.
VARIABLES:	PREPARED BY:
Temperature	R. Piekos

EXPERIMENTAL VALUES:

t/°C	G[a]	E[b]	X_g/l[c]	mol/l[d] acetone	mmol/mol acetone	l:X_g[e]	1 + X_{cc}[f]
0	13.858	12.085	112.887	527	37	7.22	8.86
5	15.005	13.047	121.360	566	41	6.66	8.02
10	16.450	14.126	132.094	617	45	6.08	7.57
15	18.408	14.546	146.730	685	50	5.43	6.82
20	20.948	17.328	165.741	774	57	4.77	6.03
25	23.904	19.336	187.694	876	65	4.19	5.33
30	27.751	21.723	216.265	1095	75	3.50	4.62
40	38.144	27.611	292.717	1361	103	2.62	3.42
45	45.913	31.465	349.582	1632	124	2.18	2.86
50	59.893	37.458	451.592	2127	163	1.67	2.21

[a] $G = \frac{p\ 100}{P - p}$, where p and P are the weights of solute and solution, resp.

[b] $E = \frac{G\ 100}{G + 100}$; [c] g/l acetone; [d] should be mmol/l acetone (compiler);

[e] g of acetone required to dissolve 1 g of solute;

[f] volume (cm^3) of acetone required to dissolve 1 g of solute.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A special all-glass app was constructed enabling the prepn of satd solns, agitation by bubbling a stream of acetone-satd N, filtration, and distn off the solvent without contact with air. Two exchangeable dissoln vessels of 15 and 8 cm^3 working capacity were used depending on the soly of solute. The app was immersed in a thermostat. The vols of acetone used were 15 or 5 cm^3, and the equilibration time was 2-2.5 h. The satd solns were filtered, weighed, the solvent was distd off, the residues were dried at 105°C, weighed, and examd for the presence of solvated acetone.

SOURCE AND PURITY OF MATERIALS:

The source of the materials was not specified. Pure, anhydrous acetone was used. The absence of impurities and water was confirmed by procedures of the German Pharmacopeia VI and Spanish Pharmacopeia VIII.

The purity of sulfacetamide was not specified.

ESTIMATED ERROR:

Soly: measurements were repeated until 2 values not differing in the second decimal were obtained (author).

Temp: ±0.1°C (author).

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[(4-aminophenyl)-sulfonyl]- (sulfacetamide); $C_8H_{10}N_2O_3S$; [144-80-9] (2) Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (PEG 400); $(C_2H_4O)_nH_2O$; [25322-68-3]	Gusyakov, V. P.; Likhol' ot, N. M.; Kutna, I. M. *Farm. Zh. (Kiev)* 1968, *23(6)*, 56-61.
VARIABLES: One temperature: 21-25°C	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Solubility of sulfacetamide in α-hydro-ω-hydroxypoly(oxy-1,2-ethanediyl) 400 at room temperature (21-25°C) is 19.9% by weight (1.16 mol kg^{-1} PEG 400, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Small quantities (2-4 mg) of sulfacetamide were added to a known quantity of PEG 400 under stirring until satn was attained.

SOURCE AND PURITY OF MATERIALS:

Sulfacetamide: neither source nor purity was specified.

PEG 400: source not specified; sp gr 1.127 g cm^{-3}; temp of solidification approx 6°C; refractive index 1.466 (temp not indicated).

ESTIMATED ERROR:

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[[(4-acetylamino)-phenyl] sulfonyl] - (acetyl sulfacetamide); $C_{10}H_{12}N_2O_4S$; [5626-90-4] (2) Phosphoric acid, disodium salt; Na_2HPO_4; [7558-94-4] (3) Water; H_2O; [7732-18-5]	Krüger-Thiemer, E. *Arch. Dermatol. Syphilis* 1942, *183*, 90-116.
VARIABLES: One temperature: ca 20°C; one pH: 8.74	PREPARED BY: R. Piekos

EXPERIMENTAL VALUES:

Solubility of acetyl sulfacetamide in a 0.705M (10%) Na_2HPO_4 solution of pH 8.74 at room temperature (about 20°C) is 2.040 g% (7.959×10^{-2} mol dm^{-3} solution, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Acetyl sulfacetamide (0.5 g) was dissolved in the 0.705M (10%) Na_2HPO_4 soln of pH 8.74, shaken for 2 h at room temp (about 20°C), and filtered. The filtrate was treated with equal vol of 2N HCl and refluxed for 15 min. After proper diln, a 1-cm^3 aliquot was withdrawn, acidified, cooled, and the sulfonamide content was detd colorimetrically by the Marshall method modified by Kimmig (1) using an Authenreith colorimeter. The pH value was detd on an ultraionograph using a glass electrode.

SOURCE AND PURITY OF MATERIALS:

Acetyl sulfacetamide (source not specified) gave no coloration upon diazotization of its satd soln, thus showing absence of sulfanilamide.

The source and purity of the remaining materials was not specified.

ESTIMATED ERROR:

Soly: precision ±5% (author).

Temp: not specified.

pH: ±0.05 pH unit (author).

REFERENCES:

1. Kimmig, J. *Arch. Dermatol.* 1938, *176*, 722; *Erg. Hyg.* 1941, *24*, 398.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Acetamide, N-[[(4-acetylamino) phenyl]sulfonyl] - (acetyl sulfacetamide); $C_{10}H_{12}N_2O_4S$; [5626-90-4] (2) Phosphoric acid, monopotassium salt; KH_2PO_4; [7778-77-0] (3) Water; H_2O; [7732-18-5]	Krüger-Thiemer, E. *Arch. Dermatol. Syphilis* 1942, *183*, 90-116.
VARIABLES: One temperature: ca 20°C; one pH: 4.37	**PREPARED BY:** R. Piekos

EXPERIMENTAL VALUES:

Solubility of acetyl sulfacetamide in a 0.735 M (10%) KH_2PO_4 solution of pH 4.37 at room temperature (about 20°C) is 0.028 g% (1.1×10^{-3} mol dm^{-3} solution, compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Acetyl sulfacetamide (0.5 g) was dissolved in the 0.735 M (10% KH_2PO_4 soln, shaken for 2 h at room temp (about 20°C), and filtered. The filtrate was treated with equal vol of 2N HCl, and refluxed for 15 min. After proper diln, a 1-cm^3 aliquot was withdrawn, acidified, cooled, and the sulfonamide content was detd colorimetrically by the Marshall method modified by Kimmig (1) using an Authenreith colorimeter. The pH value was detd on an ultraionograph using a glass electrode.	Acetyl sulfacetamide (source not specified) gave no coloration upon diazotization of its satd soln, thus showing absence of sulfanilamide. The source and purity of the remaining materials was not specified.
	ESTIMATED ERROR: Soly: precision ±5% (author). Temp: not specified. pH: ±0.05 pH unit (author).
	REFERENCES: 1. Kimmig, J. *Arch. Dermatol.* 1938, *176*, 722; *Erg. Hyg.* 1941, *24*, 398.