

# NMR Solvent data chart

Solvent	<sup>1</sup> H Chemical Shift* (ppm from TMS) (multiplicity)	JHD (Hz)	Carbon-13 Chemical Shift* (ppm from TMS) (multiplicity)	JCD (Hz)	<sup>1</sup> H Chemical Shift of HOD** (ppm from TMS)	Density at 20°C***	Melting point (°C)***	Boiling point (°C)***	Dielectric Constant	Molecular Weight***
Acetic acid D <sub>4</sub>	11.65 (1) 2.04 (5)	2.2	178.99 (1) 20.0 (7)	20	11.5	1.12	16.7	118	6.1	64.08
Acetone D <sub>6</sub>	2.05 (5)	2.2	206.68 (1) 29.92 (7)	0.9 19.4	2.8	0.87	-94	56.5	20.7	64.12
Acetonitrile D <sub>3</sub>	1.94 (5)	2.5	118.69 (1) 1.39 (7)	21	2.1	0.84	-45	81.6	37.5	44.07
Benzene D <sub>6</sub>	7.16 (1)		128.39 (3)	24.3	0.4	0.95	5.5	80.1	2.3	84.15
Chloroform D	7.24 (1)		77.23 (3)	32.0	1.5	1.50	-63.5	61-62	4.8	120.38
Cyclohexane D <sub>12</sub>	1.38 (1)		26.43 (5)	19	0.8	0.89	6.47	80.7	2.0	96.24
Deuterium oxide	4.80 (DSS) 4.81 (TSP)		NA	NA	4.8	1.11	3.81	101.42	78.5	20.03
N,N Dimethyl-forma- mide D <sub>7</sub>	8.03 (1) 2.92 (5) 2.75 (5)	1.9 1.9	163.15 (3) 34.89 (7) 29.76 (7)	29.4 21.0 21.1	3.5	1.03	-61	153	36.7	80.14
1,2 Dichlorobenzene D <sub>4</sub>	6.93 (1) 7.19 (1)		127.19 (3) 130.04 (3) 132.39		0.8	1.3	-17	181	9.8	151.03
Dimethyl sulfoxide D <sub>6</sub>	2.50 (5)	1.9	39.51 (7)	21.0	3.3	1.19	18.45	189	46.7	84.17
1,4 Dioxane D <sub>8</sub>	3.53 (m)		66.66 (5)	21.9	2.4	1.13	11.8	101.1	2.2	96.16
Ethanol D <sub>6</sub>	5.19 (1) 3.56 (1) 1.11 (m)		56.96 (5) 17.31 (7)	22 19	5.3	0.89	-114.1	78.5	24.5	52.11
Hexafluoroisopropanol D <sub>2</sub>	4.41 (m) 4.86 (1)		68.07 (m) 120.66 (4)			1.6	-4	59		170.05
Isopropanol D <sub>8</sub>	1.1 (1) 3.89 (1) 5.27 (1)		25.8 (7) 64.5 (3)			0.9	-89	83	18.3	68.4
Methanol D <sub>4</sub>	4.78 (1) 3.31 (5)	1.7	49.15 (7)	21.4	4.9	0.89	-97.8	64.7	32.7	36.07
Methylene chloride D <sub>2</sub>	5.32 (3)	1.1	54.00 (5)	27.2	1.5	1.35	-95	39.75	8.9	86.95
Pyridine D <sub>5</sub>	8.74 (1) 7.58 (1) 7.22 (1)		150.35 (3) 135.91 (3) 123.87 (3)	27.5 24.5 25	5	1.05	-42	115.2	12.4	84.13
Tetrachloroethane D <sub>2</sub>	6.0 (1)		73.78 (3)			1.62	-44	146.5	8.2	169.86
Tetrahydrofuran D <sub>8</sub>	3.58 (1) 1.73 (1)		67.57 (5) 25.37 (5)	22.2 20.2	2.4-2.5	0.99	-108.5	66	7.6	80.16
Toluene D <sub>8</sub>	7.09 (m) 7.00 (1) 6.98 (5) 2.09 (5)	2.3	137.86 (1) 129.24 (3) 128.33 (3) 125.49 (3) 20.4 (7)	23 24 24 19	0.4	0.94	-95	110.6	2.4	100.19
Trifluoroacetic Acid D	11.50 (1)		164.2 (4) 116.6 (4)		11.5	1.49	-15.4	72.4		115.03
Trifluoroethanol D <sub>3</sub>	5.02 (1) 3.88 (4x3)	2(9)	126.3 (4) 61.5 (4x5)	22	5	1.41	-43.3	74.05		103.06

\* The <sup>1</sup>H spectra of the residual protons and <sup>13</sup>C spectra were obtained on a Varian Gemini 200 spectro-meter at 295°K. The NMR solvents used to acquire these spectra contain a maximum of 0.05% and 1.0% TMS (v/v) respectively. Since deuterium has a spin of 1, triplets arising from coupling to deuterium have the intensity ratio of 1:1:1. «m» denotes a broad peak with some fine structures. It should be noted that chemical shifts, can be dependent on solvent, concentration and temperature.

\*\* Approximate values only; may vary with pH, concentration and temperature.

\*\*\* Melting and boiling points are those of the corresponding unlabeled compound (except for D<sub>2</sub>O). These temperature limits can be used as a guide to determine the useful liquid range of the solvents. Information gathered from the Merck Index - Fourteenth Edition.

M.J. O'Neil, P.E. Heckelman, C.B. Koch, K.J. Roman, *The Merck Index, an Encyclopedia of Chemicals, Drugs, and Biologicals – Fourteenth Edition, Merck Co., Inc. Whitehouse Station, NJ 2006*

## Quick reference guide to euriso-top's solvent packaging sizes

Code	Solvent	0.6 ml	0.75 ml	1 ml	5 ml	10 ml	25 ml	100 ml	100 g	500 ml	1000 ml
D012	Acetic Acid D <sub>4</sub> 99.5% D		BB			EA					
D041	Acetic Acid D <sub>4</sub> 99.91% D		BB								
D009	Acetone D <sub>6</sub> 99.8% D	T	B			ES*, FE	F	H			
D038	Acetone D <sub>6</sub> 99.96% D		B								
D338	Acetone D <sub>6</sub> 99.96% D + 0.03% TMS		B								
D021	Acetonitrile D <sub>3</sub> 99.8% D		B		FD	FE, EAS*			Z		
D044	Acetonitrile D <sub>3</sub> 99.96% D		BB								
D344	Acetonitrile D <sub>3</sub> 99.96% D + 0.03% TMS		BB								
D001	Benzene D <sub>6</sub> 99.5% D	T	B			FE, ES*	F	H			
D040	Benzene D <sub>6</sub> 99.96% D		B								
D081	n-Butanol D <sub>10</sub> 98% D				FD						
D006	Chloroform D 99.5% D							H		K	
D007	Chloroform D 99.8% D	T	B			FE	F	H, HAg	Z	K, KAg	L
D213	Chloroform D 99.8% D + 1% TMS							H			
D307	Chloroform D 99.8% D + 0.03% TMS						F	H, HAg	Z	K	
D029	Chloroform D 99.96% D	T	B				F				
D329	Chloroform D 99.96% D + 0.03% TMS	T	B				F				
D017	Cyclohexane D <sub>12</sub> 99.5% D		BB		FD						
D070	Deuterium Chloride (7,6N in D 99.9% D <sub>2</sub> O solution)								Z		
D214	Deuterium Oxide 99.9% D		B			FE	F, FS*	H		K	L
D215	Deuterium Oxide 99.96% D	T	B			ES*	F	H			
D220	1,2-Dichlorobenzene D <sub>4</sub> 99% D				FD						
D222	1,4-Dichlorobenzene D <sub>4</sub> 98% D				5g						
D010	Dimethylsulfoxide D <sub>6</sub> 99.8% D	T	B		FD	FE, ES*	F	H			NO HDO PEAK
D310	Dimethylsulfoxide D <sub>6</sub> 99.8% D + 0.03% TMS		B			ES*	F	H			
D610	Dimethylsulfoxide D <sub>6</sub> 99.8% D + 0.06% TMS		B				F				
D031	Dimethylsulfoxide D <sub>6</sub> 99.9% D	T					F	H			
D034	Dimethylsulfoxide D <sub>6</sub> 99.96% D	T	B		FD	EAS*		H			
D334	Dimethylsulfoxide D <sub>6</sub> 99.96% D + 0.03% TMS	T	B								
D112	Dioxane D8 99% D			CB							
D114	Ethanol D <sub>6</sub> anhydrous 99% D			CB	FD						
D043	Ethanol OD 99% D						F	H			
D052	Hexafluoroisopropanol D <sub>2</sub> 99% D			CB	FD	FE					
D072V	Isopropanol D <sub>8</sub> 99% D					10 g					
D015	Methanol OD 99%						F				
D047	Methanol D <sub>3</sub> 99.5% D		B		FD						
D024	Methanol D <sub>4</sub> 99.8% D	T	B			FE, ES*	F, FS*	H			
D324	Methanol D <sub>4</sub> 99.8% D + 0.03% TMS		B			FE					
D048	Methanol D <sub>4</sub> 99.95% D	T	B		FD						
D348	Methanol D <sub>4</sub> 99.95% D + 0.03% TMS		BB								
D023	Methylene Chloride D <sub>2</sub> 99.8% D	T	B			FE	F				
D049	Methylene Chloride D <sub>2</sub> 99.96% D		BB								
D013	Pyridine D <sub>5</sub> 99.5% D	T	B			FE	F				
D039	Pyridine D <sub>5</sub> 99.94% D		BB								
D076Y	Sodium Deuterioxide (40% w/w solution in D <sub>2</sub> O)								50g		
D077	Sulfuric Acid D <sub>2</sub> 96-98% in D <sub>2</sub> O								Z		
D218	Tetrachloroethane D <sub>2</sub> 99.6% D					FE	F				
D149	Tetrahydrofuran D <sub>8</sub> 99.5% D		BB	CB		FE	F				
D005	Toluene D <sub>8</sub> 99.5% D		BB			FE	F				
D042	Toluene D <sub>8</sub> 99.94% D		BB								
D022	Trifluoroacetic Acid D <sub>1</sub> 99.5% D		BB			EA					
D208	Trifluoroethyl Alcohol D <sub>2</sub> 98% D		BB								
D027	Trifluoroethyl Alcohol D <sub>3</sub> 99% D		BB								
D206 PH	Deuterated Molecular Sieves 3A 99.8% D				5g						
D207 PH	Deuterated Molecular Sieves 4A 99.8% D				5g						

T = 10 x 0.6ml

B = 10 x 0.75ml

BB = 2 x 0.75ml

CB = 2 x 1ml

FD = 1 x 5ml

E = 5 x 10ml

V = 1 x 10g

FE = 1 x 10ml (Vial)

EA = 1 x 10ml (Ampul)

K = 1 x 500ml

L = 1 x 1000ml

S\* = Vials "Penicilin" Type

Z = 100g

HAg = 100ml + Silver

KAg = 500ml + Silver