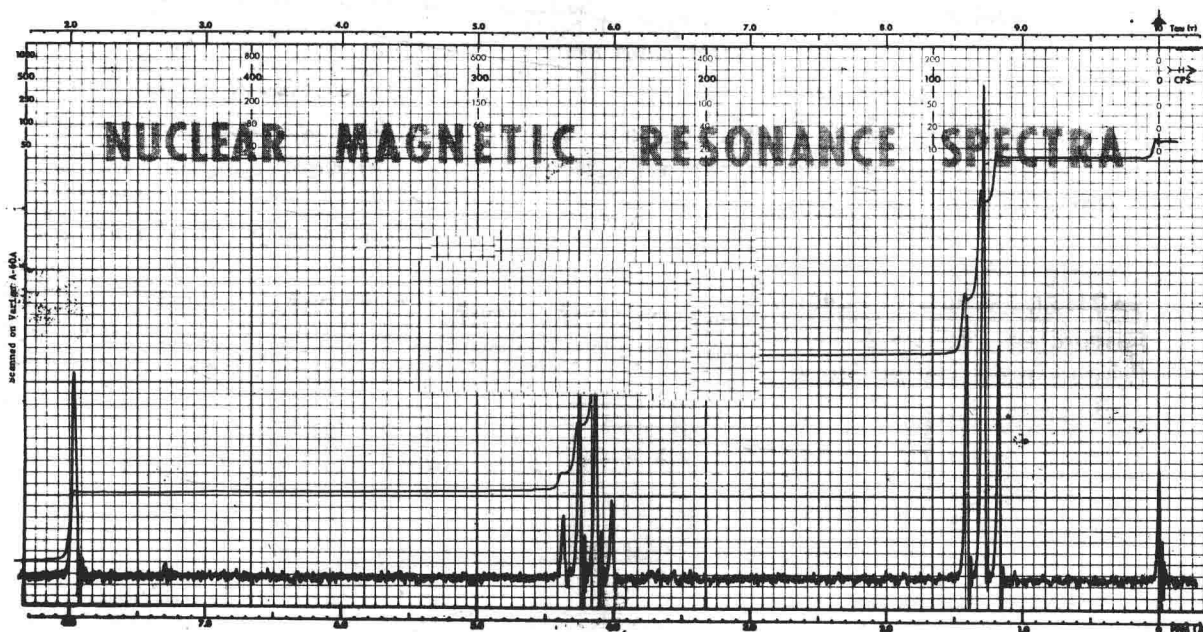




SOLVENTS

Vol. 1

L1M - L300M



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SOLVENTS

SADTLER NMR SPEC-FINDER

The Sadtler NMR Spec-Finder is a simple method of correlating the NMR spectrum of an unknown structure with the NMR spectrum of a known structure. The structure of the unknown compound can be inferred by comparing its spectrum with those of known spectra which it closely resembles.

The Spec-Finder is constructed by first recording in a row the δ values of the strongest band in each full part-per-million (ppm) region, proceeding from 0 to 14 ppm, then entering the ppm value of the strongest band among all at the end of the row. The Spec-Finder includes all of the alternative cases in which two or more strong bands of equal intensity occur in the same region. Absence of a band in a ppm region is indicated with a dash.

In applying the Spec-Finder it is advisable to allow for a possible deviation of ± 0.02 ppm in each reading; this deviation may be due to calibration of instruments or the particular technique used. Since solvent characteristics significantly affect the position of the signals, the name of the solvent used in obtaining each spectrum is also given in the Spec-Finder.

In comparing the spectrum of an unknown with those listed in the Spec-Finder, first look for a match of the strongest band. After locating the series of compounds represented by strongest bands within ± 0.02 ppm of the strongest band of the unknown, attempt to match the bands in all of the ppm regions from 0 to 14 ppm. In so doing, if band distributions similar to that of the unknown are found, the spectrum (or spectra) should be compared with that of the unknown. It is important to bear in mind that if a different solvent has been employed, the exact match may not be found.

The following is a list of the solvents corresponding to abbreviated designations used in the Spec-Finder.

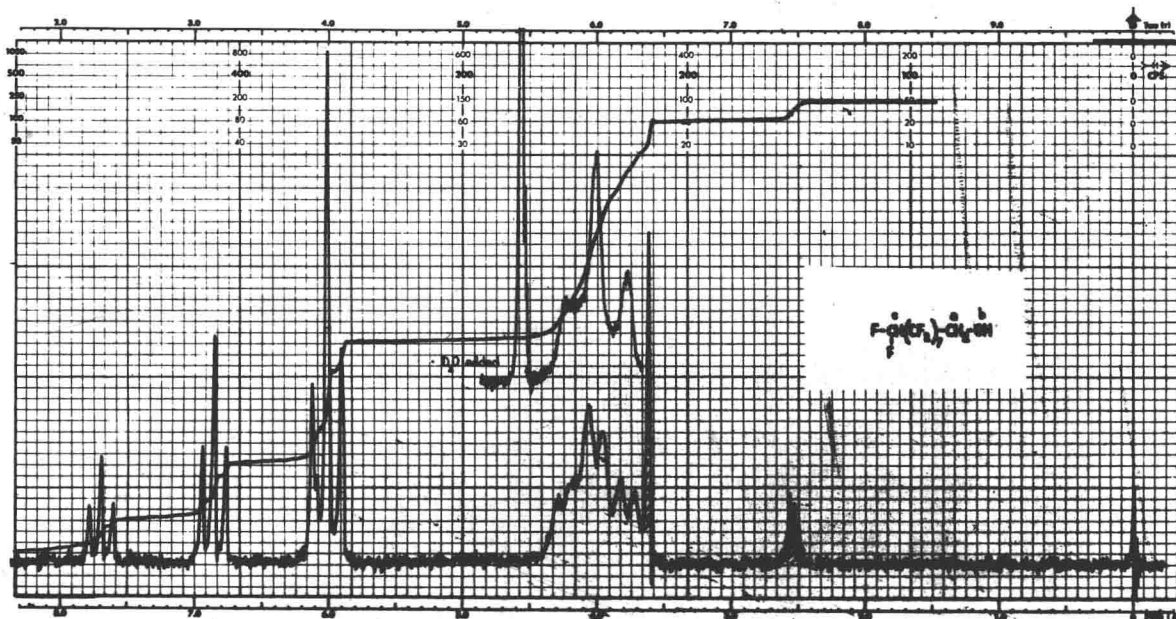
CCL4	CARBON TETRACHLORIDE
CDCL3	DEUTERATED CHLOROFORM
D2O	DEUTERATED WATER
DMSO-D6	DEUTERATED DIMETHYLSULFOXIDE
NEAT	NO SOLVENT USED

Examples illustrating the use of the Spec-Finder appear on the following pages.

SADTLER SOLVENTS NMR SPECFINDER 1968

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	STRONGEST BAND	SOLVENT USED	INDEX NUMBER
-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	5.17	CCL4	L 207M
-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	5.27	CCL4	L 176M
-	-	-	-	-	91	-	-	-	-	-	-	-	-	-	5.91	CCL4	L 178M
-	-	-	97	07	89	00	69	-	-	-	-	-	-	-	6.00	DMSO-D6	L 106M
-	-	-	-	-	-	36	-	-	-	-	-	-	-	-	6.36	CCL4	L 210M
-	-	-	-	-	-	42	-	-	-	-	-	-	-	-	6.42	CCL4	L 181M
-	-	-	-	-	-	45	-	-	-	-	-	-	-	-	6.45	CCL4	L 180M
-	-	-	-	-	-	82	04	-	-	-	-	-	-	-	6.82	CCL4	L 205M
-	-	-	-	-	-	83	11	-	-	-	-	-	-	-	6.83	CCL4	L 120M
-	-	18	-	-	-	85	00	-	-	-	-	-	-	-	6.85	CCL4	L 121M
-	72	68	-	-	-	91	-	-	-	-	-	-	-	-	6.91	CCL4	L 216M

-	-	-	92	02	41	01	-	-	-	-	-	-	-	-	4.02	CCL4	L 208M
94	06	-	34	05	-	-	-	-	-	-	-	-	-	-	4.05	CCL4	L 3M
-	-	-	90	15	19	09	01	-	-	-	-	-	-	-	4.15	NEAT	L 104M
-	-	-	90	15	99	09	01	-	-	-	-	-	-	-	4.15	NEAT	L 104M
-	-	-	99	21	14	00	-	-	-	-	-	-	-	-	4.21	CCL4	L 98M
-	-	-	99	21	30	00	-	-	-	-	-	-	-	-	4.21	CCL4	L 98M
-	-	75	74	21	-	-	-	-	-	-	-	-	-	-	4.21	CDCL3	L 114M
-	25	-	49	29	-	-	-	-	-	-	-	-	-	-	4.29	CCL4	L 78M
-	-	-	90	32	16	03	-	-	-	-	-	-	-	-	4.32	NEAT	L 105M
-	24	-	75	40	-	-	-	-	-	-	-	-	-	-	4.40	CDCL3	L 68M
95	55	-	65	42	-	-	42	06	-	-	-	-	-	-	4.42	CCL4	L 31M
-	-	-	-	52	-	-	-	-	-	-	-	-	-	-	4.52	CDCL3	L 18M
-	-	-	-	74	-	99	22	02	-	-	-	-	-	-	4.74	CCL4	L 206M
-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	4.92	CCL4	L 199M

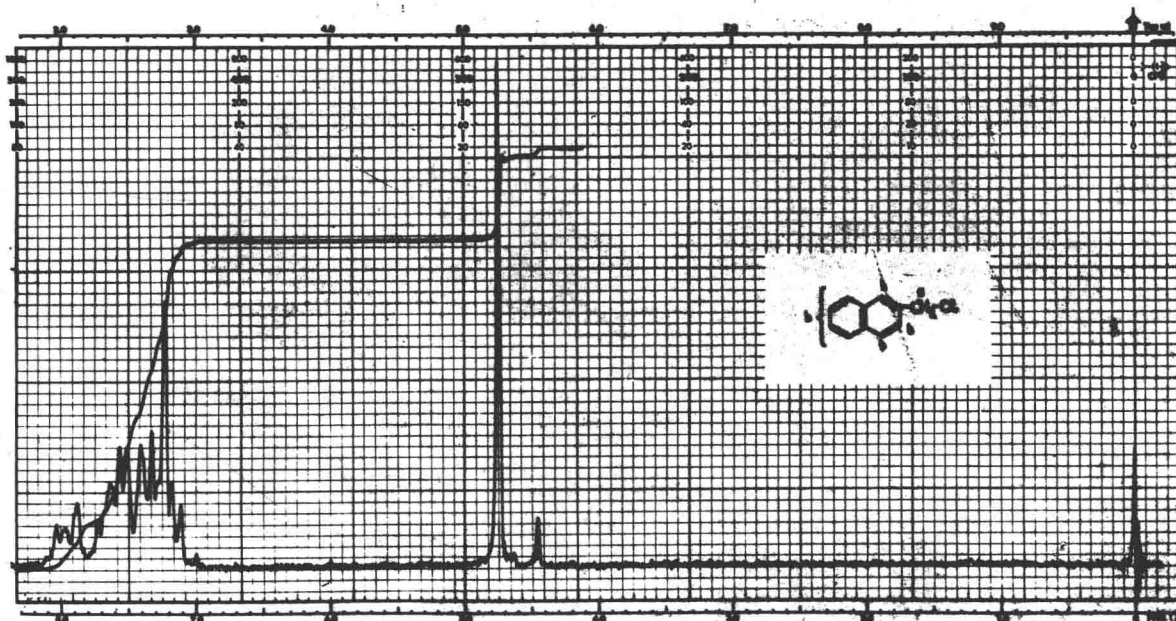


-	-	-	97	07	89	00	69	-	-	-	-	-	-	-	6.00	DMSO ₄	L 106M
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14		-D ₆	
p p m (δ scale)															STRONGEST BAND	SOLVENT	INDEX NUMBER

SADTLER NMR CODING SLIP

-	-	-	-	74	-	99	22	02	-	-	-	-	-	-	4.74	CCl ₄	L 206M
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14			
p p m (δ scale)															STRONGEST BAND	SOLVENT	INDEX NUMBER

SADTLER NMR CODING SLIP



SADTLER SOLVENTS NMR SPECFINDER 1968

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	STRONGEST BAND	SOLVENT USED	INDEX NUMBER
81	26	16	-	-	12	-	-	-	-	-	-	-	-	-	.81	CCL4	L 241M
82	26	19	-	-	17	-	-	-	-	-	-	-	-	-	.82	CCL4	L 244M
83	26	17	-	53	12	-	-	-	-	-	-	-	-	-	.83	CCL4	L 243M
83	26	17	-	53	14	-	-	-	-	-	-	-	-	-	.83	CCL4	L 243M
85	12	-	-	-	-	-	-	-	-	-	-	-	-	-	.85	CCL4	L 297M
85	17	-	-	-	-	-	-	-	-	-	-	-	-	-	.85	CCL4	L 297M
85	25	20	-	-	-	84	00	-	-	-	-	-	-	-	.85	CCL4	L 277M
87	12	-	-	-	-	-	-	-	-	-	-	-	-	-	.87	CCL4	L 279M
87	12	-	-	-	-	-	-	-	-	-	-	-	-	-	.87	CCL4	L 294M
87	17	-	-	-	-	-	-	-	-	-	-	-	-	-	.87	CCL4	L 294M
88	16	-	-	-	-	-	-	-	-	-	-	-	-	-	.88	CCL4	L 293M
88	17	-	-	-	-	-	-	-	-	-	-	-	-	-	.88	CCL4	L 298M
88	25	-	54	-	-	-	-	-	-	-	-	-	-	-	.88	CCL4	L 62M
88	30	-	48	-	-	-	-	-	-	-	-	-	-	-	.88	CCL4	L 72M
88	42	-	-	-	-	-	-	-	-	-	-	-	-	-	.88	CCL4	L 270M
89	15	76	54	-	-	-	-	-	-	-	-	-	-	-	.89	CCL4	L 96M
89	20	76	54	-	-	-	-	-	-	-	-	-	-	-	.89	CCL4	L 96M
89	23	30	-	-	-	-	08	-	-	-	-	-	-	-	.89	CCL4	L 258M
89	26	-	-	-	-	-	-	-	-	-	-	-	-	-	.89	CCL4	L 263M
89	27	28	-	-	-	92	07	-	-	-	-	-	-	-	.89	CCL4	L 261M
89	27	28	-	-	-	92	09	-	-	-	-	-	-	-	.89	CCL4	L 261M
89	42	-	-	-	-	-	-	-	-	-	-	-	-	-	.89	CCL4	L 269M
90	00	48	30	-	-	-	-	-	-	-	-	-	-	-	.90	CCL4	L 153M
90	01	-	52	36	-	-	-	-	-	-	-	-	-	-	.90	CCL4	L 88M
90	25	31	-	-	-	-	08	-	-	-	-	-	-	-	.90	CCL4	L 272M
90	28	-	-	-	-	-	-	-	-	-	-	-	-	-	.90	CCL4	L 268M
90	35	98	59	-	-	-	-	-	-	-	-	-	-	-	.90	CCL4	L 36M
90	61	-	-	68	21	-	-	-	-	-	-	-	-	-	.90	CCL4	L 247M
91	01	-	62	50	-	-	-	-	-	-	-	-	-	-	.91	CCL4	L 99M
91	17	65	68	-	-	-	-	-	-	-	-	-	-	-	.91	CCL4	L 100M
91	18	-	-	-	-	-	-	-	-	-	-	-	-	-	.91	CCL4	L 289M
91	26	30	-	-	-	-	07	-	-	-	-	-	-	-	.91	CCL4	L 281M
91	27	31	-	-	-	-	07	-	-	-	-	-	-	-	.91	CCL4	L 262M
91	27	32	-	-	-	-	27	-	-	-	-	-	-	-	.91	CCL4	L 287M
91	27	32	-	-	-	-	28	-	-	-	-	-	-	-	.91	CCL4	L 253M
91	30	08	34	-	-	-	-	-	-	-	-	-	-	-	.91	CCL4	L 186M
91	45	33	-	-	-	-	12	-	-	-	-	-	-	-	.91	CCL4	L 254M
92	15	08	67	00	-	-	-	-	-	-	-	-	-	-	.92	CCL4	L 81M
92	30	-	47	-	-	-	-	-	-	-	-	-	-	-	.92	CCL4	L 195M
92	31	-	53	05	-	-	-	-	-	-	-	-	-	-	.92	CCL4	L 112M
92	46	-	53	12	-	-	-	-	-	-	-	-	-	-	.92	CCL4	L 66M
92	60	00	-	64	10	-	-	-	-	-	-	-	-	-	.92	CCL4	L 246M
92	60	00	-	64	22	-	-	-	-	-	-	-	-	-	.92	CCL4	L 246M
92	60	00	-	64	30	-	-	-	-	-	-	-	-	-	.92	CCL4	L 246M
93	07	15	-	-	-	-	-	-	-	-	-	-	-	-	.93	CCL4	L 54M
93	42	10	34	-	-	-	-	-	-	-	-	-	-	-	.93	CCL4	L 189M
94	16	03	17	-	-	-	-	-	-	-	-	-	-	-	.94	CCL4	L 102M
94	22	03	17	-	-	-	-	-	-	-	-	-	-	-	.94	CCL4	L 102M
94	44	-	80	-	-	-	-	-	-	-	-	-	-	-	.94	CCL4	L 75M
94	60	50	30	-	-	-	-	-	-	-	-	-	-	-	.94	CCL4	L 79M
95	04	01	48	-	-	-	-	-	-	-	-	-	-	-	.95	CCL4	L 183M
95	05	08	17	-	-	-	-	-	-	-	-	-	-	-	.95	CCL4	L 193M
95	16	-	27	-	-	-	-	-	-	-	-	-	-	-	.95	CCL4	L 94M
95	43	-	57	10	-	-	-	-	-	-	-	-	-	-	.95	CCL4	L 65M
96	05	00	35	-	-	-	-	-	-	-	-	-	-	-	.96	CCL4	L 204M
98	10	01	41	00	-	-	37	-	-	-	-	-	-	-	.98	CDCL3	L 84M
98	10	28	-	-	-	-	-	-	-	-	-	-	-	-	.98	CCL4	L 51M
98	58	00	50	-	-	-	-	-	-	-	-	-	-	-	.98	CCL4	L 192M
98	77	00	35	-	-	-	-	-	-	-	-	-	-	-	.98	CCL4	L 191M
99	10	24	33	-	-	-	-	-	-	-	-	-	-	-	.99	CCL4	L 61M
98	00	05	-	-	70	-	-	-	-	-	-	-	-	-	1.00	CCL4	L 57M
98	00	05	-	-	72	-	-	-	-	-	-	-	-	-	1.00	CCL4	L 57M
-	01	97	34	60	-	-	-	-	-	-	-	-	-	-	1.01	CCL4	L 135M

SADTLER SOLVENTS NMR SPECIFINDER 1968

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	STRONGEST BAND	SOLVENT USED	INDEX NUMBER
90	02	06	94	05	-	-	-	-	-	-	-	-	-	-	1.02	CCL4	L 194M
91	04	01	46	-	-	-	-	-	-	-	-	-	-	-	1.04	CCL4	L 202M
95	05	05	-	01	-	-	-	-	-	-	-	-	-	-	1.05	CCL4	L 28M
95	05	06	27	-	-	-	-	-	-	-	-	-	-	-	1.05	CCL4	L 184M
98	10	30	-	-	78	-	-	-	-	-	-	-	-	-	1.10	CCL4	L 167M
85	11	70	-	-	34	-	-	-	-	-	-	-	-	-	1.11	CCL4	L 64M
95	11	05	-	67	35	-	-	-	-	-	-	-	-	-	1.11	CCL4	L 90M
-	12	-	32	-	-	-	-	-	-	-	-	-	-	-	1.12	CCL4	L 151M
-	15	-	57	45	-	-	-	-	-	-	-	-	-	-	1.15	CCL4	L 63M
-	15	-	63	-	-	-	-	-	-	-	-	-	-	-	1.15	CDCL3	L 150M
-	16	13	56	50	-	-	-	-	-	-	-	-	-	-	1.16	CCL4	L 69M
90	16	-	69	-	-	-	-	-	-	-	-	-	-	-	1.16	CCL4	L 67M
-	17	-	50	-	-	-	-	-	-	-	-	-	-	-	1.17	CCL4	L 140M
-	17	-	55	-	-	-	-	-	-	-	-	-	-	-	1.17	CCL4	L 140M
-	17	08	15	-	-	-	-	-	-	-	-	-	-	-	1.17	CCL4	L 60M
-	18	-	93	05	-	-	-	-	-	-	-	-	-	-	1.18	CCL4	L 80M
-	19	-	99	72	-	-	-	-	-	-	-	-	-	-	1.19	CCL4	L 97M
-	19	13	61	-	-	-	-	-	-	-	-	-	-	-	1.19	CCL4	L 46M
-	19	50	-	-	-	95	00	-	-	-	-	-	-	-	1.19	CCL4	L 234M
-	20	-	-	63	-	-	-	-	-	-	-	-	-	-	1.20	D2O	L 70M
-	20	01	63	10	-	-	-	-	-	-	-	-	-	-	1.20	CCL4	L 145M
70	21	36	-	53	-	-	-	-	-	-	-	-	-	-	1.21	CCL4	L 242M
87	22	40	-	-	-	-	18	-	-	-	-	-	-	-	1.22	CCL4	L 220M
86	23	95	-	-	-	-	-	-	-	-	-	-	-	-	1.23	CDCL3	L 41M
88	24	20	-	-	-	80	07	-	-	-	-	-	-	-	1.24	CCL4	L 259M
89	24	21	-	-	-	-	-	-	-	-	-	-	-	-	1.24	CCL4	L 249M
-	25	-	62	15	-	19	-	-	-	-	-	-	-	-	1.25	CCL4	L 156M
89	25	-	-	-	-	-	-	-	-	-	-	-	-	-	1.25	CCL4	L 264M
89	25	-	-	-	-	-	-	-	-	-	-	-	-	-	1.25	CCL4	L 285M
89	25	21	-	-	-	83	09	-	-	-	-	-	-	-	1.25	CCL4	L 257M
89	25	21	-	-	-	97	08	-	-	-	-	-	-	-	1.25	CCL4	L 292M
89	25	22	-	-	-	82	08	-	-	-	-	-	-	-	1.25	CCL4	L 260M
89	25	22	-	-	-	95	08	-	-	-	-	-	-	-	1.25	CCL4	L 260M
89	25	23	-	-	-	82	10	-	-	-	-	-	-	-	1.25	CCL4	L 248M
90	25	42	-	-	-	-	21	-	-	-	-	-	-	-	1.25	CCL4	L 224M
91	25	-	-	-	-	-	-	-	-	-	-	-	-	-	1.25	CCL4	L 264M
-	26	-	41	05	-	-	-	-	-	-	-	-	-	-	1.26	CCL4	L 149M
89	26	28	-	-	-	96	00	-	-	-	-	-	-	-	1.26	CCL4	L 256M
89	26	28	-	-	22	93	11	-	-	-	-	-	-	-	1.26	CCL4	L 250M
89	26	28	-	-	22	97	11	-	-	-	-	-	-	-	1.26	CCL4	L 250M
-	27	-	-	-	-	93	36	-	-	-	-	-	-	-	1.27	CCL4	L 119M
88	27	-	-	-	-	-	-	-	-	-	-	-	-	-	1.27	CCL4	L 266M
88	27	-	-	-	-	-	-	-	-	-	-	-	-	-	1.27	CCL4	L 291M
88	27	-	52	-	-	-	-	-	-	-	-	-	-	-	1.27	CCL4	L 117M
88	27	-	62	-	-	-	-	-	-	-	-	-	-	-	1.27	CDCL3	L 116M
88	27	22	-	-	-	82	01	-	-	-	-	-	-	-	1.27	CCL4	L 278M
88	27	22	-	-	-	82	07	-	-	-	-	-	-	-	1.27	CCL4	L 278M
88	27	94	-	-	28	-	-	-	-	-	-	-	-	-	1.27	CCL4	L 37M
88	27	97	-	-	-	-	-	-	-	-	-	-	-	-	1.27	CCL4	L 39M
88	27	99	-	-	-	-	-	-	-	-	-	-	-	-	1.27	CDCL3	L 42M
89	27	-	45	-	-	-	-	-	-	-	-	-	-	-	1.27	CCL4	L 196M
89	27	20	-	-	-	-	-	-	-	-	-	-	-	-	1.27	CCL4	L 283M
89	27	21	-	-	-	82	09	-	-	-	-	-	-	-	1.27	CCL4	L 290M
89	27	21	-	-	-	93	09	-	-	-	-	-	-	-	1.27	CCL4	L 290M
89	27	22	-	-	-	-	-	-	-	-	-	-	-	-	1.27	CCL4	L 271M
89	27	46	-	-	-	-	-	-	-	-	-	-	-	-	1.27	CCL4	L 271M
90	27	-	48	-	-	-	-	-	-	-	-	-	-	-	1.27	CCL4	L 73M
90	27	24	-	-	-	82	09	-	-	-	-	-	-	-	1.27	CCL4	L 273M
90	27	24	-	-	-	89	00	-	-	-	-	-	-	-	1.27	CCL4	L 252M
-	28	-	80	02	-	84	05	-	-	-	-	-	-	-	1.28	CCL4	L 157M
88	28	21	-	-	-	82	09	-	-	-	-	-	-	-	1.28	CCL4	L 288M
89	28	-	60	-	-	-	-	-	-	-	-	-	-	-	1.28	CCL4	L 109M
89	28	20	-	-	-	87	00	-	-	-	-	-	-	-	1.28	CCL4	L 284M
89	28	28	-	-	-	96	09	-	-	-	-	-	-	-	1.28	CCL4	L 275M
89	28	28	-	-	-	99	09	-	-	-	-	-	-	-	1.28	CCL4	L 275M
90	28	28	-	-	-	92	10	-	-	-	-	-	-	-	1.28	CCL4	L 276M
90	28	28	-	-	-	97	10	-	-	-	-	-	-	-	1.28	CCL4	L 276M
88	29	-	51	-	-	-	-	-	-	-	-	-	-	-	1.29	C3D6O	L 118M

SADTLER SOLVENTS NMR SPECIFINDER 1968

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	STRONGEST BAND	SOLVENT USED	INDEX NUMBER
89	29	-	50	-	-	-	-	-	-	-	-	-	-	-	1.29	CCL4	L 110M
90	29	29	-	-	-	93	10	-	-	-	-	-	-	-	1.29	CCL4	L 282M
91	29	-	-	-	-	-	-	-	-	-	-	-	-	-	1.29	CCL4	L 267M
91	29	26	-	-	-	88	01	-	-	-	-	-	-	-	1.29	CCL4	L 265M
-	30	-	-	12	-	-	96	-	-	-	-	-	-	-	1.30	CCL4	L 20M
-	30	-	-	22	-	-	58	-	-	-	-	-	-	-	1.30	CCL4	L 8M
88	30	-	52	-	-	-	-	-	-	-	-	-	-	-	1.30	CCL4	L 111M
90	30	98	-	-	-	-	-	-	-	-	-	-	-	-	1.30	CCL4	L 38M
-	32	-	-	23	-	-	-	-	-	-	-	-	-	-	1.32	CCL4	L 30M
88	32	-	49	15	-	-	-	-	-	-	-	-	-	-	1.32	CCL4	L 77M
-	35	-	-	24	-	-	-	-	-	-	-	-	-	-	1.35	CCL4	L 26M
89	35	-	51	33	-	-	-	-	-	-	-	-	-	-	1.35	CCL4	L 108M
-	40	-	99	10	24	-	-	-	-	-	-	-	-	-	1.40	CCL4	L 9M
96	40	-	35	14	-	-	-	-	-	-	-	-	-	-	1.40	CCL4	L 25M
-	41	-	-	-	-	-	-	-	-	-	-	-	-	-	1.41	CCL4	L 296M
91	43	-	-	-	-	-	25	-	-	-	-	-	-	-	1.43	CCL4	L 280M
89	44	-	-	-	-	-	-	-	-	-	-	-	-	-	1.44	CCL4	L 251M
-	45	-	-	-	-	-	-	-	-	-	-	-	-	-	1.45	CCL4	L 286M
-	47	27	-	-	-	-	-	-	-	-	-	-	-	-	1.47	CCL4	L 82M
-	49	47	-	-	-	-	-	-	-	-	-	-	-	-	1.49	CDCL3	L 71M
-	53	-	-	30	-	-	-	-	-	-	-	-	-	-	1.53	CCL4	L 170M
-	53	-	90	55	06	-	-	-	-	-	-	-	-	-	1.53	CDCL3	L 19M
-	54	-	87	17	-	-	-	-	-	-	-	-	-	-	1.54	D2O	L 86M
-	55	00	92	06	-	-	-	-	-	-	-	-	-	-	1.55	CCL4	L 185M
-	55	00	92	12	-	-	-	-	-	-	-	-	-	-	1.55	CCL4	L 185M
-	57	-	58	-	-	-	-	-	-	-	-	-	-	-	1.57	D2O	L 107M
-	58	58	86	-	-	-	-	-	-	-	-	-	-	-	1.58	CDCL3	L 87M
-	65	31	-	-	-	-	-	-	-	-	-	-	-	-	1.65	CDCL3	L 91M
-	70	-	32	-	-	-	-	-	-	-	-	-	-	-	1.70	CCL4	L 201M
-	70	16	91	04	55	-	-	-	-	-	-	-	-	-	1.70	CCL4	L 13M
-	78	-	-	22	-	-	-	-	-	-	-	-	-	-	1.78	CCL4	L 203M
-	80	25	-	-	-	-	-	-	-	-	-	-	-	-	1.80	CCL4	L 47M
-	82	-	-	94	28	18	-	-	-	-	-	-	-	-	1.82	CCL4	L 245M
-	85	98	09	-	-	-	-	-	-	-	-	-	-	-	1.85	CCL4	L 190M
-	91	-	-	91	01	-	-	-	-	-	-	-	-	-	1.91	CCL4	L 12M
-	93	00	-	-	-	-	-	-	-	-	-	-	-	-	1.93	CCL4	L 55M
92	94	-	94	05	-	-	46	10	-	-	-	-	-	-	1.94	CCL4	L 29M
-	95	-	99	12	-	-	-	-	-	-	-	-	-	-	1.95	CCL4	L 5M
-	95	83	00	-	-	-	-	-	-	-	-	-	-	-	1.95	CCL4	L 40M
90	95	-	94	-	-	-	-	-	-	-	-	-	-	-	1.95	CCL4	L 32M
90	95	-	99	10	-	-	-	-	-	-	-	-	-	-	1.95	CCL4	L 24M
95	95	-	90	00	-	-	-	-	-	-	-	-	-	-	1.95	CCL4	L 7M
96	95	-	80	07	-	-	-	-	-	-	-	-	-	-	1.95	CCL4	L 2M
96	95	-	89	07	-	-	-	-	-	-	-	-	-	-	1.95	CCL4	L 2M
99	95	01	89	11	-	-	-	-	-	-	-	-	-	-	1.95	CDCL3	L 187M
95	96	-	-	91	01	-	-	-	-	-	-	-	-	-	1.96	CCL4	L 15M
97	96	-	73	-	-	-	-	-	-	-	-	-	-	-	1.96	CCL4	L 27M
-	97	-	60	-	-	-	-	-	-	-	-	-	-	-	1.97	CCL4	L 4M
-	97	14	-	-	39	-	-	-	-	-	-	-	-	-	1.97	CCL4	L 58M
-	99	-	49	01	-	-	-	-	-	-	-	-	-	-	1.99	CCL4	L 16M
91	99	-	51	02	-	-	-	-	-	-	-	-	-	-	1.99	CCL4	L 23M
91	99	-	51	11	-	-	-	-	-	-	-	-	-	-	1.99	CCL4	L 23M
-	15	00	51	02	-	-	-	-	-	-	-	-	-	-	2.00	CCL4	L 34M
-	15	00	51	10	-	-	-	-	-	-	-	-	-	-	2.00	CCL4	L 34M
92	48	00	50	03	-	-	-	-	-	-	-	-	-	-	2.00	CCL4	L 22M
92	51	00	50	03	-	-	-	-	-	-	-	-	-	-	2.00	CCL4	L 22M
-	99	01	86	15	13	-	-	-	-	-	-	-	-	-	2.01	CCL4	L 11M
-	99	01	96	15	13	-	-	-	-	-	-	-	-	-	2.01	CCL4	L 11M
88	29	01	-	-	-	-	-	-	-	-	-	-	-	-	2.01	CCL4	L 52M
88	32	01	-	-	-	-	-	-	-	-	-	-	-	-	2.01	CCL4	L 52M
95	97	01	-	-	-	-	-	-	-	-	-	-	-	-	2.01	CCL4	L 53M
-	-	03	-	-	-	-	-	-	-	-	-	-	-	-	2.03	CCL4	L 164M
92	43	03	-	-	-	-	-	-	-	-	-	-	-	-	2.03	CCL4	L 59M

SADTLER SOLVENTS NMR SPECIFINDER 1968

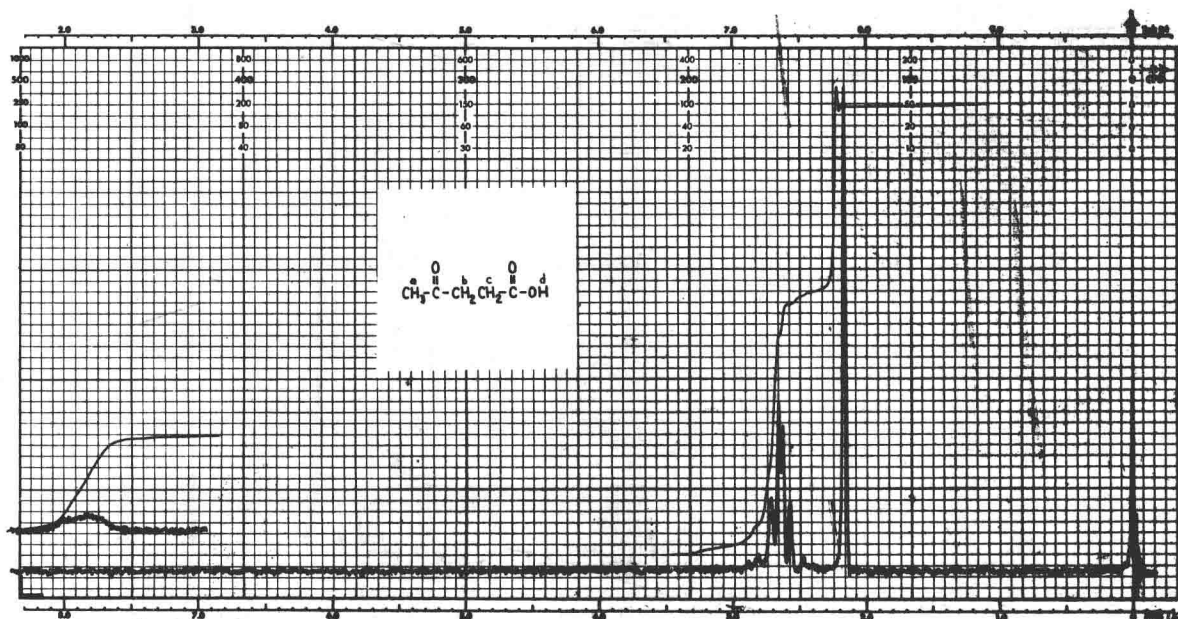
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-	-	04	56	01	11	-	-	-	-	-	-	-	-	-	2.04	CCL4	L 6M
-	86	05	-	-	-	02	-	-	-	-	-	-	-	-	2.05	CCL4	L 56M
-	90	05	-	60	-	-	-	-	-	-	-	-	-	-	2.05	CCL4	L 10M
88	00	05	-	-	-	-	-	-	-	-	-	-	-	-	2.05	CCL4	L 44M
-	20	06	61	14	-	-	-	-	-	-	-	-	-	-	2.06	CDCL3	L 14M
87	00	06	-	-	-	-	-	-	-	-	-	-	-	-	2.06	CCL4	L 50M
-	-	08	-	-	-	-	-	-	-	-	-	-	-	-	2.08	CCL4	L 49M
-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	2.11	CCL4	L 168M
-	12	14	-	-	-	37	11	-	-	-	-	-	-	-	2.14	CCL4	L 125M
90	12	15	-	-	-	82	35	-	-	-	-	-	-	-	2.15	CCL4	L 217M
-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	2.16	CDCL3	L 1M
90	17	16	-	-	-	83	08	-	-	-	-	-	-	-	2.16	CCL4	L 212M
90	17	16	-	-	-	83	40	-	-	-	-	-	-	-	2.16	CCL4	L 212M
-	-	17	-	41	-	79	-	-	-	-	-	-	-	-	2.17	CCL4	L 126M
-	93	17	32	-	-	-	91	-	-	-	-	-	-	-	2.17	CDCL3	L 299M
-	-	18	-	-	-	69	12	-	-	-	-	-	-	-	2.18	CCL4	L 123M
-	-	18	-	-	39	97	06	-	-	-	-	-	-	-	2.18	CCL4	L 122M
-	-	18	-	-	86	14	-	-	-	-	-	-	-	-	2.18	CCL4	L 48M
-	-	19	-	-	-	80	00	-	-	-	-	-	-	-	2.19	CCL4	L 124M
-	-	20	-	-	-	65	-	-	-	-	-	-	-	-	2.20	CCL4	L 232M
-	-	20	-	-	-	99	-	-	-	-	-	-	-	-	2.20	CCL4	L 239M
88	19	20	-	-	-	92	06	-	-	-	-	-	-	-	2.20	CCL4	L 219M
90	19	20	-	-	-	91	05	-	-	-	-	-	-	-	2.20	CCL4	L 235M
91	19	20	-	-	-	92	06	-	-	-	-	-	-	-	2.20	CCL4	L 219M
91	26	20	-	-	-	85	43	-	-	-	-	-	-	-	2.20	CCL4	L 213M
91	26	20	-	-	-	85	65	-	-	-	-	-	-	-	2.20	CCL4	L 213M
92	20	21	-	-	-	94	06	-	-	-	-	-	-	-	2.21	CCL4	L 211M
-	20	22	-	-	-	90	07	-	-	-	-	-	-	-	2.22	CCL4	L 233M
89	20	22	-	-	-	83	06	-	-	-	-	-	-	-	2.22	CCL4	L 229M
89	20	22	-	-	-	90	06	-	-	-	-	-	-	-	2.22	CCL4	L 229M
90	25	22	-	-	-	85	11	-	-	-	-	-	-	-	2.22	CCL4	L 214M
91	20	22	-	-	-	99	01	-	-	-	-	-	-	-	2.22	CCL4	L 221M
-	-	24	-	-	-	95	15	-	-	-	-	-	-	-	2.24	CCL4	L 175M
-	-	25	-	-	-	87	03	-	-	-	-	-	-	-	2.25	CCL4	L 173M
-	-	25	-	-	-	87	08	-	-	-	-	-	-	-	2.25	CCL4	L 173M
-	-	25	-	-	-	95	-	-	-	-	-	-	-	-	2.25	CCL4	L 215M
-	20	25	-	-	-	92	10	-	-	-	-	-	-	-	2.25	CCL4	L 223M
88	19	25	-	-	-	94	06	-	-	-	-	-	-	-	2.25	CCL4	L 238M
89	25	26	-	-	-	91	09	-	-	-	-	-	-	-	2.26	CCL4	L 236M
89	25	26	-	-	-	95	09	-	-	-	-	-	-	-	2.26	CCL4	L 236M
-	-	28	-	-	-	-	05	-	-	-	-	-	-	-	2.28	CCL4	L 174M
89	24	28	-	-	-	90	04	-	-	-	-	-	-	-	2.28	CCL4	L 226M
-	-	29	-	-	-	99	03	-	-	-	-	-	-	-	2.29	CCL4	L 172M
-	73	32	83	37	92	-	-	-	-	-	-	-	-	-	2.32	CCL4	L 295M
-	73	32	83	37	98	-	-	-	-	-	-	-	-	-	2.32	CCL4	L 295M
-	73	32	92	37	92	-	-	-	-	-	-	-	-	-	2.32	CCL4	L 295M
-	73	32	92	37	98	-	-	-	-	-	-	-	-	-	2.32	CCL4	L 295M
-	80	32	83	37	92	-	-	-	-	-	-	-	-	-	2.32	CCL4	L 295M
-	80	32	83	37	98	-	-	-	-	-	-	-	-	-	2.32	CCL4	L 295M
-	80	32	92	37	92	-	-	-	-	-	-	-	-	-	2.32	CCL4	L 295M
-	80	32	92	37	98	-	-	-	-	-	-	-	-	-	2.32	CCL4	L 295M
-	-	35	-	-	-	98	10	-	-	-	-	-	-	-	2.35	CCL4	L 197M
90	23	37	-	-	-	85	30	-	-	-	-	-	-	-	2.37	CCL4	L 230M
-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	2.40	CCL4	L 165M
-	-	48	-	-	-	95	08	46	-	-	-	-	-	-	2.48	CCL4	L 128M
-	-	48	-	-	-	96	08	45	-	-	-	-	-	-	2.48	CCL4	L 129M
-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	2.50	CCL4	L 163M
91	27	90	-	-	-	85	39	-	-	-	-	-	-	-	2.90	CCL4	L 218M
-	-	92	-	-	-	-	89	-	-	-	-	-	-	-	2.92	CCL4	L 35M
90	35	98	59	-	-	-	-	-	-	-	-	-	-	-	2.98	CCL4	L 36M
-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	3.10	D2O	L 166M
-	95	-	24	06	-	-	-	-	-	-	-	-	-	-	3.24	CCL4	L 33M
-	-	-	25	41	-	-	-	-	-	-	-	-	-	-	3.25	CCL4	L 159M

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0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	STRONGEST BAND	SOLVENT USED	INDEX NUMBER
-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	3.27	CCL4	L 154M
-	18	-	27	-	-	-	-	-	-	-	-	-	-	-	3.27	CCL4	L 115M
98	02	96	27	-	-	-	-	-	-	-	-	-	-	-	3.27	CCL4	L 132M
98	10	96	27	-	-	-	-	-	-	-	-	-	-	-	3.27	CCL4	L 132M
-	-	-	28	-	-	-	-	-	-	-	-	-	-	-	3.28	CCL4	L 160M
-	-	-	28	-	-	-	-	-	-	-	-	-	-	-	3.28	CCL4	L 162M
99	03	76	30	-	-	-	-	-	-	-	-	-	-	-	3.30	CCL4	L 131M
99	04	-	30	-	-	-	-	-	-	-	-	-	-	-	3.30	CCL4	L 133M
99	10	-	30	-	-	-	-	-	-	-	-	-	-	-	3.30	CCL4	L 137M
99	13	-	30	-	-	-	-	-	-	-	-	-	-	-	3.30	CCL4	L 141M
99	13	76	30	-	-	-	-	-	-	-	-	-	-	-	3.30	CCL4	L 131M
-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	3.32	CCL4	L 134M
-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	3.32	CCL4	L 138M
-	-	78	42	-	-	-	-	-	-	-	-	-	-	-	3.42	CDCL3	L 83M
91	45	-	42	-	-	-	-	-	-	-	-	-	-	-	3.42	CCL4	L 139M
-	83	08	48	08	-	-	-	-	-	-	-	-	-	-	3.48	CCL4	L 89M
-	16	-	50	-	-	-	-	-	-	-	-	-	-	-	3.50	CCL4	L 158M
-	17	-	50	-	-	-	-	-	-	-	-	-	-	-	3.50	CCL4	L 140M
-	42	-	50	-	-	-	-	-	-	-	-	-	-	-	3.50	D2O	L 95M
-	-	-	52	-	-	-	-	-	-	-	-	-	-	-	3.52	CCL4	L 161M
-	-	-	52	18	91	79	-	-	-	-	-	-	-	-	3.52	CDCL3	L 103M
91	44	-	52	-	-	-	-	-	-	-	-	-	-	-	3.52	CCL4	L 136M
-	-	-	55	-	-	-	-	-	-	-	-	-	-	-	3.55	CCL4	L 152M
-	17	-	55	-	-	-	-	-	-	-	-	-	-	-	3.55	CCL4	L 140M
-	19	-	57	41	-	-	-	-	-	-	-	-	-	-	3.57	CCL4	L 113M
-	68	50	58	-	-	-	-	-	-	-	-	-	-	-	3.58	CDCL3	L 74M
-	-	-	60	38	-	-	-	-	-	-	-	-	-	-	3.60	CCL4	L 101M
-	-	-	60	70	-	-	-	-	-	-	-	-	-	-	3.60	D2O	L 76M
-	97	-	60	-	-	-	-	-	-	-	-	-	-	-	3.60	CCL4	L 4M
-	75	-	61	-	99	75	05	-	-	-	-	-	-	-	3.61	CCL4	L 146M
-	-	-	62	-	-	-	-	-	-	-	-	-	-	-	3.62	D2O	L 93M
-	-	-	62	-	-	82	03	-	-	-	-	-	-	-	3.62	CCL4	L 147M
-	-	-	63	-	-	-	-	-	-	-	-	-	-	-	3.63	D2O	L 144M
-	-	-	63	04	-	24	-	-	-	-	-	-	-	-	3.63	CCL4	L 155M
90	00	70	63	-	-	-	-	-	-	-	-	-	-	-	3.63	D2O	L 142M
90	42	70	63	-	-	-	-	-	-	-	-	-	-	-	3.63	D2O	L 142M
-	-	-	65	-	-	-	-	-	-	-	-	-	-	-	3.65	CCL4	L 148M
-	-	-	67	-	-	-	-	-	-	-	-	-	-	-	3.67	D2O	L 92M
-	-	27	67	10	-	-	-	-	-	-	-	-	-	-	3.67	CCL4	L 198M
-	20	-	67	-	-	-	-	-	-	-	-	-	-	-	3.67	D2O	L 143M
-	-	-	76	-	-	-	-	-	-	-	-	-	-	-	3.76	CCL4	L 17M
-	-	-	91	17	-	-	-	-	-	-	-	-	-	-	3.91	CCL4	L 200M
-	-	-	95	-	21	10	-	-	-	-	-	-	-	-	3.95	CCL4	L 209M
-	29	20	97	18	-	-	-	-	-	-	-	-	-	-	3.97	CDCL3	L 45M
-	29	20	97	20	-	-	-	-	-	-	-	-	-	-	3.97	CDCL3	L 45M
-	30	-	99	14	-	-	-	-	-	-	-	-	-	-	3.99	CCL4	L 21M
87	00	03	99	-	-	-	-	-	-	-	-	-	-	-	3.99	D2O	L 85M
-	-	-	92	02	41	01	-	-	-	-	-	-	-	-	4.02	CCL4	L 208M
94	06	-	34	05	-	-	-	-	-	-	-	-	-	-	4.05	CCL4	L 3M
-	-	-	90	15	19	09	01	-	-	-	-	-	-	-	4.15	NEAT	L 104M
-	-	-	90	15	99	09	01	-	-	-	-	-	-	-	4.15	NEAT	L 104M
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-	-	-	99	21	30	00	-	-	-	-	-	-	-	-	4.21	CCL4	L 98M
-	-	75	74	21	-	-	-	-	-	-	-	-	-	-	4.21	CDCL3	L 114M
-	25	-	49	29	-	-	-	-	-	-	-	-	-	-	4.29	CCL4	L 78M
-	-	-	90	32	16	03	-	-	-	-	-	-	-	-	4.32	NEAT	L 105M
-	24	-	75	40	-	-	-	-	-	-	-	-	-	-	4.40	CDCL3	L 68M
95	55	-	65	42	-	-	42	06	-	-	-	-	-	-	4.42	CCL4	L 31M
-	-	-	-	52	-	-	-	-	-	-	-	-	-	-	4.52	CDCL3	L 18M
-	-	-	-	74	-	99	22	02	-	-	-	-	-	-	4.74	CCL4	L 206M
-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	4.92	CCL4	L 199M

SADTLER SOLVENTS NMR SPECFINDER 1968

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	STRONGEST BAND	SOLVENT USED	INDEX NUMBER
-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	5.17	CCL4	L 207M
-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	5.27	CCL4	L 176M
-	-	-	-	-	91	-	-	-	-	-	-	-	-	-	5.91	CCL4	L 178M
-	-	-	97	07	89	00	69	-	-	-	-	-	-	-	6.00	DMSO-D6	L 106M
-	-	-	-	-	-	36	-	-	-	-	-	-	-	-	6.36	CCL4	L 210M
-	-	-	-	-	-	42	-	-	-	-	-	-	-	-	6.42	CCL4	L 181M
-	-	-	-	-	-	45	-	-	-	-	-	-	-	-	6.45	CCL4	L 180M
-	-	-	-	-	-	82	04	-	-	-	-	-	-	-	6.82	CCL4	L 205M
-	-	-	-	-	-	83	11	-	-	-	-	-	-	-	6.83	CCL4	L 120M
-	-	18	-	-	-	85	00	-	-	-	-	-	-	-	6.85	CCL4	L 121M
-	12	68	-	-	-	91	-	-	-	-	-	-	-	-	6.91	CCL4	L 216M
90	25	30	-	-	-	-	04	-	-	-	-	-	-	-	7.04	CCL4	L 228M
-	-	30	-	-	-	-	05	-	-	-	-	-	-	-	7.05	CCL4	L 227M
91	42	30	-	-	-	-	05	-	-	-	-	-	-	-	7.05	CCL4	L 337M
89	25	31	-	-	-	-	08	-	-	-	-	-	-	-	7.08	CCL4	L 274M
-	-	29	-	-	-	-	10	-	-	-	-	-	-	-	7.10	CCL4	L 222M
89	25	30	-	-	-	-	10	-	-	-	-	-	-	-	7.10	CCL4	L 240M
80	29	50	-	-	-	-	11	-	-	-	-	-	-	-	7.11	CCL4	L 231M
90	27	32	-	-	-	-	11	-	-	-	-	-	-	-	7.11	CCL4	L 255M
-	-	-	-	-	-	92	19	-	-	-	-	-	-	-	7.19	CCL4	L 182M
-	-	-	-	-	-	96	20	-	-	-	-	-	-	-	7.20	CCL4	L 177M
-	-	99	39	-	-	-	20	-	-	-	-	-	-	-	7.20	CCL4	L 188M
-	-	99	48	-	-	-	20	-	-	-	-	-	-	-	7.20	CCL4	L 188M
-	-	64	68	-	-	-	21	-	-	-	-	-	-	-	7.21	CCL4	L 300M
-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	7.26	CCL4	L 225M
-	-	-	-	47	-	-	28	-	-	-	-	-	-	-	7.28	CCL4	L 171M
-	-	-	36	-	-	-	28	59	-	-	-	-	-	-	7.28	CCL4	L 127M
-	-	-	-	-	-	-	33	30	-	-	-	-	-	-	7.33	CCL4	L 130M
-	-	-	-	-	-	-	54	-	-	-	-	-	-	-	7.54	CDCL3	L 179M
-	-	-	-	-	-	-	60	07	-	-	-	-	-	-	7.60	CCL4	L 169M
-	-	-	-	-	-	66	24	-	67	-	-	-	-	-	9.67	CCL4	L 43M



L 1M

LEVULINIC ACID

4-OXOPENTANOIC ACID

L 860

M. P. 37°C B. P. 246°C/760mm Hg
 Sp. Gr. 20/4°C 1.14 Visc. 30°C 22 cps.
 Source: Crown Zellerbach Corp.

Filter bandwidth: 4 cps
 Sweep time: 250 sec
 Sweep width: 500 cps
 Sweep offset: - /90 cps
 Spectrum amp: 12.5
 Integral amp: 80 (spec. amp. 8)

ASSIGNMENTS

a 2.17 e _____
 b ca. 2.59 f _____
 c ca. 2.70 g _____
 d 9.33 h _____

Conc. 60mg/0.5ml CDCl₃

SOLVENTS

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L 39

AMYL ACETATE

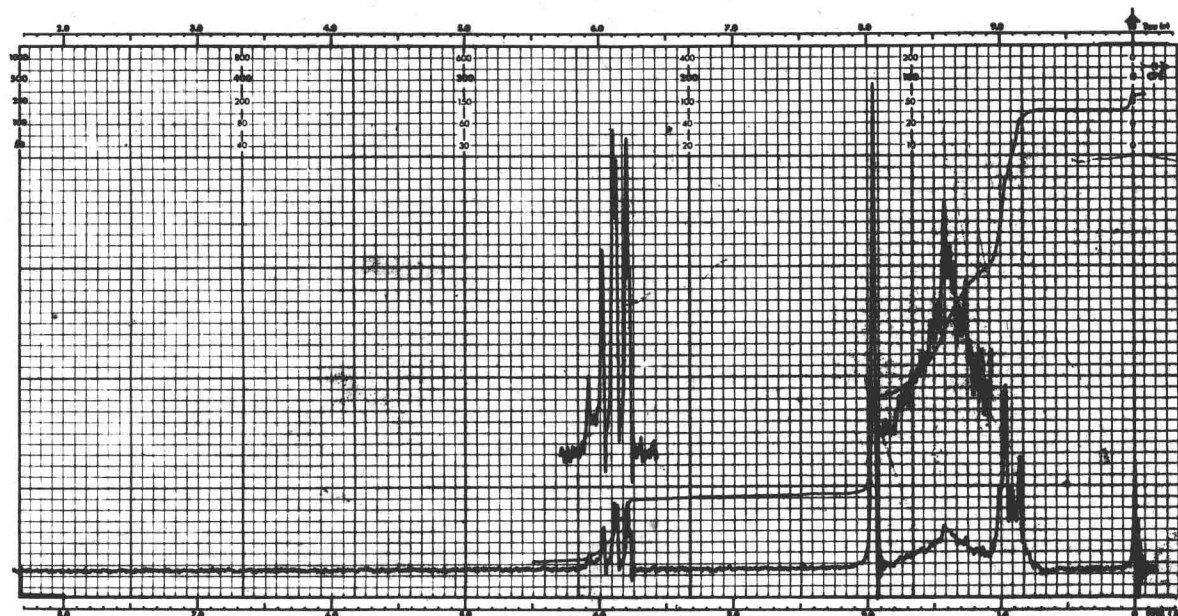
Boiling Range 362-458°F Sp. Gr. 60°F 0.8155
 Kauri Butanol Value 37.6 Aniline Point 137°F
 Source: J. T. Baker Chemical Co.

Flash Point (TCC) 143°F

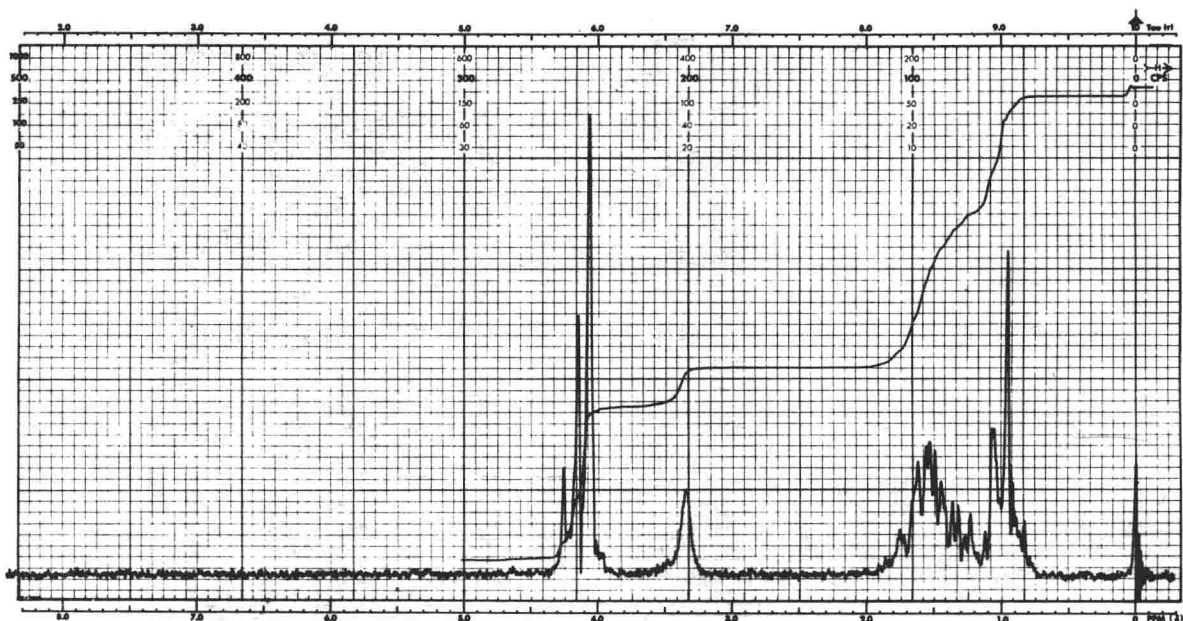
ASSIGNMENTS

a _____ e _____
 b _____ f _____
 c _____ g _____
 d _____ h _____

Conc. 60mg/0.5ml CC1₄



L 2M



POLYSOLVAN O GLYCOLIC ACID ESTERS

L 81

B. P. 165-195°C Flash Point 55°C
Source: Farbwerke Hoechst AG

Filter bandwidth: 4 cps
Sweep time: 250 sec
Sweep width: 500 cps
Sweep offset: - cps
Spectrum amp: 16
Integral amp: 80 (spec. amp. 2.5)

ASSIGNMENTS

a _____ e _____
b _____ f _____
c _____ g _____
d _____ h _____

Conc. 60mg/0.5ml CCl₄

SOLVENTS



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LÖSUNGSMITTEL E8

MIXTURE OF VOLATILE ACETATE AND METHANOL

L 84

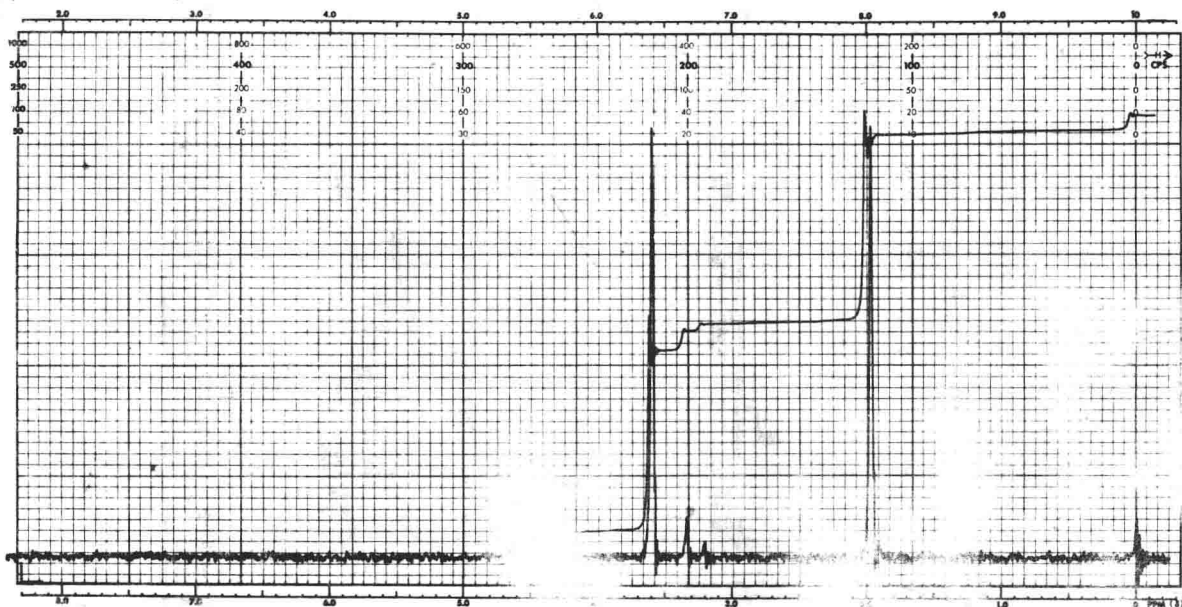
Boiling Range 52-58°C Flash Point < -10°C
Source: Farbwerke Hoechst AG

Filter bandwidth: 4 cps
Sweep time: 250 sec
Sweep width: 500 cps
Sweep offset: - cps
Spectrum amp: 5
Integral amp: 80 (spec. amp. 4)

ASSIGNMENTS

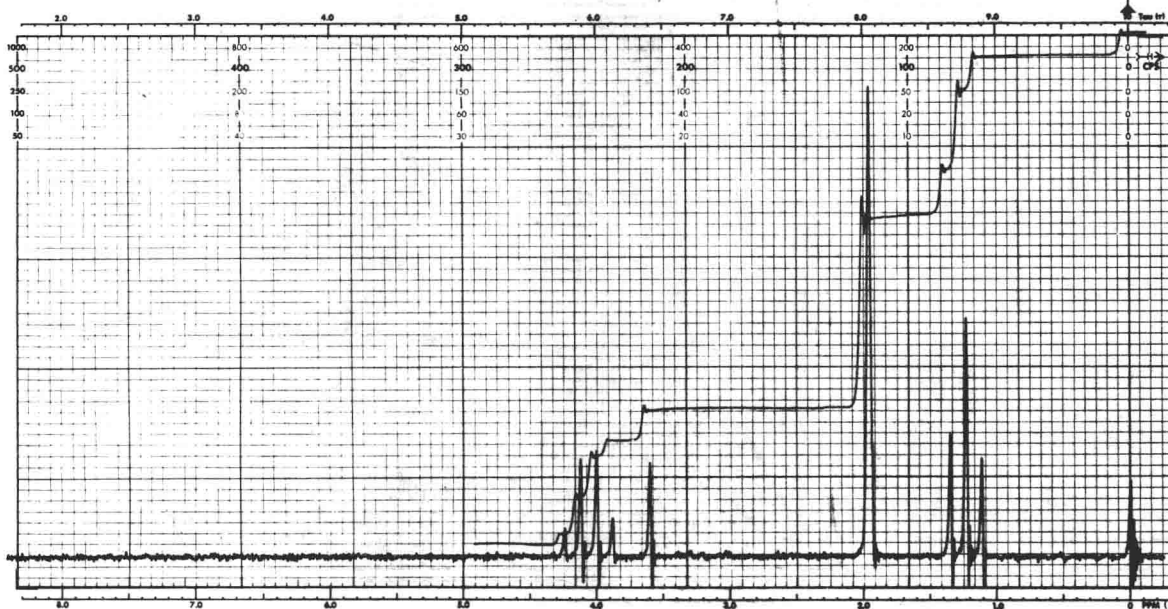
a _____ e _____
b _____ f _____
c _____ g _____
d _____ h _____

Conc. 60mg/0.5ml CCl₄



L 3M

L 4M



LOSUNGSMITTEL E12

MIXTURE OF METHYL ACETATE, ETHYL ACETATE, METHANOL AND BUTANOL

Boiling Range 70-85°C Flash Point -10°C

Source: Farbwerke Hoechst AG

L 86

Filter bandwidth: 4 cps
Sweep time: 250 sec
Sweep width: 500 cps
Sweep offset: - cps
Spectrum amp: 8 cps
Integral amp: 80 (spec. amp. 5)

ASSIGNMENTS

a _____ e _____
b _____ f _____
c _____ g _____
d _____ h _____

Conc. 60mg/0.5ml CCl₄

SOLVENTS



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ACETIN

L 159

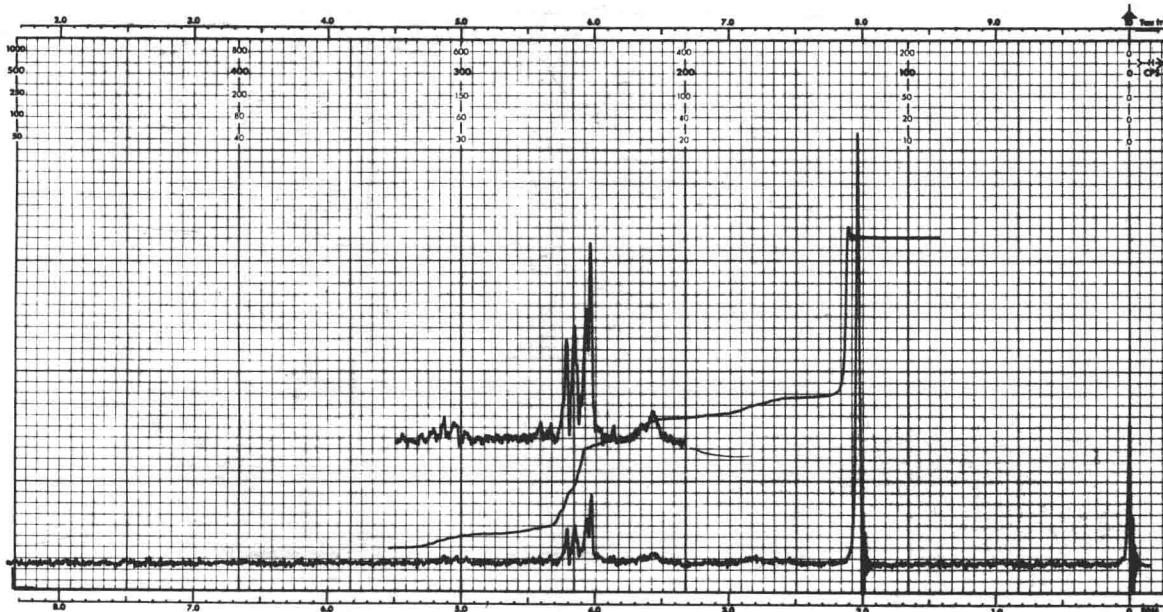
Source: Armour & Co., Kessler Chemical Division

Filter bandwidth: 4 cps
Sweep time: 250 sec
Sweep width: 500 cps
Sweep offset: - cps
Spectrum amp: 25/80
Integral amp: 80 (spec. amp. 12.5)

ASSIGNMENTS

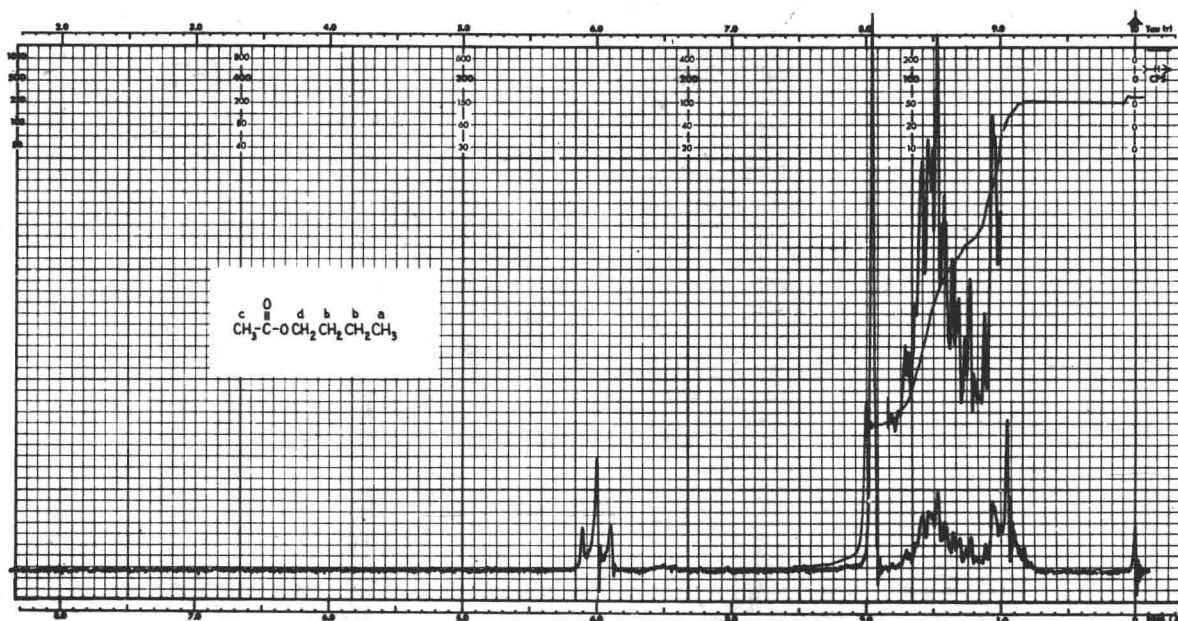
a _____ e _____
b _____ f _____
c _____ g _____
d _____ h _____

Conc. 60mg/0.5ml CCl₄



L 5M

L 6M



L 7M

n-BUTYL ACETATE

L 209

B. P. 126.1°C/760mm Density 25°C 0.87636
n 20/D 1.3947
Source: Commercial Solvents Corp.

Filter bandwidth: 4 cps
Sweep time: 250 sec
Sweep width: 500 cps
Sweep offset: - cps
Spectrum amp: 6.3/32
Integral amp: 80 (spec. amp. 2.5)

ASSIGNMENTS

a	0.95	e	
b	1.10-1.80	f	
c	1.96	g	
d	4.00	h	

Conc. 60mg/0.5ml CCl₄

SOLVENTS



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L 240

KODAFLEX DIETHYL PHTHALATE

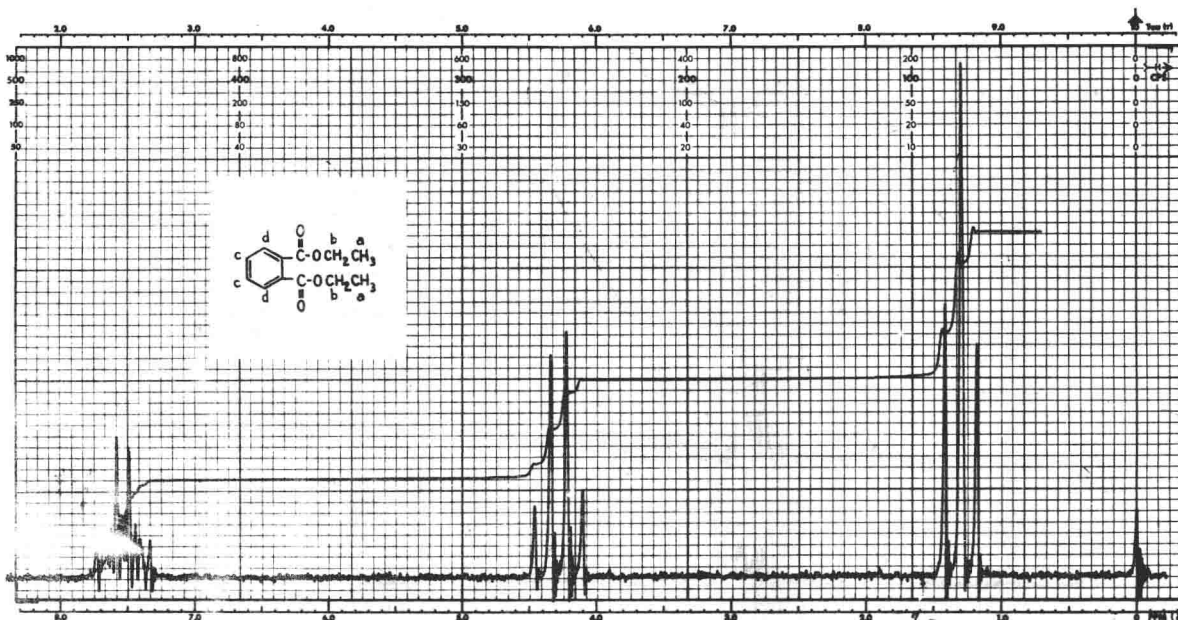
Sp. Gr. 20/20°C 1.118-1.122 B. P. 298.5°C
Flash Point (COC) 325°F n 25/D 1.4490
Source: Eastman Chemical Products, Inc.

Filter bandwidth: 4 cps
Sweep time: 250 sec
Sweep width: 500 cps
Sweep offset: - cps
Spectrum amp: 6.3
Integral amp: 80 (spec. amp. 1.6)

ASSIGNMENTS

a	1.30	e	
b	4.29	f	
c	7.43	g	
d	7.61	h	

Conc. 60mg/0.5ml CCl₄



L 8M