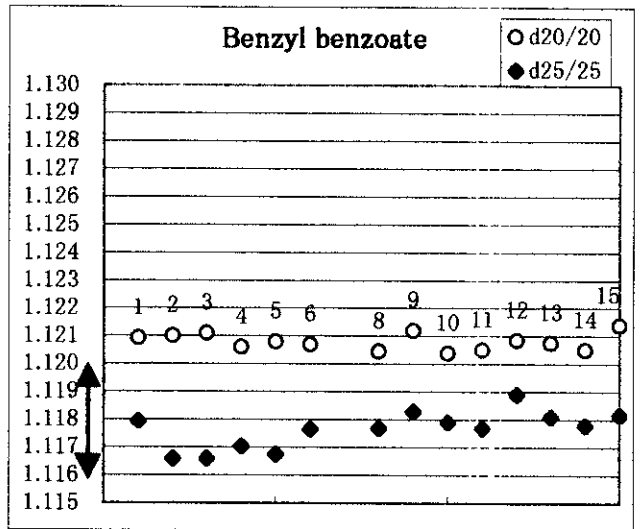
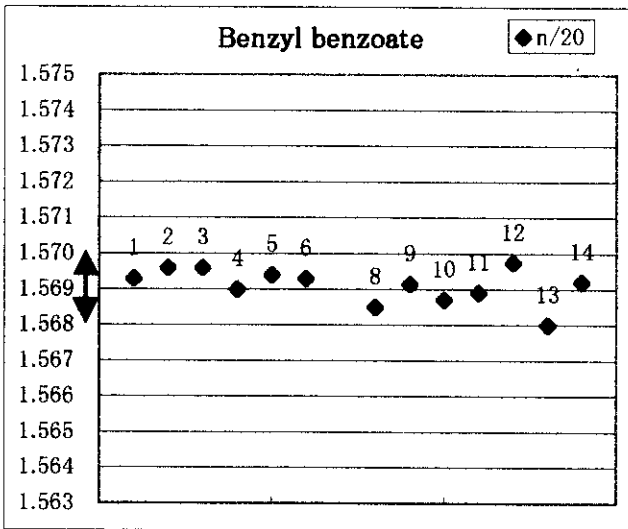


※GC法

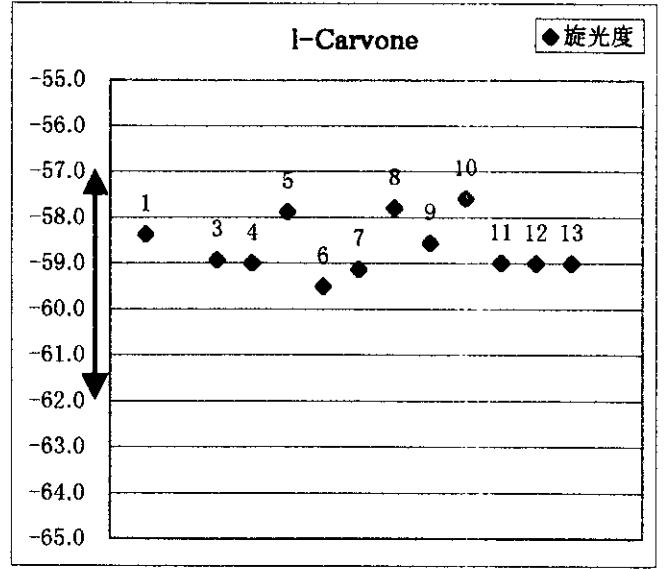
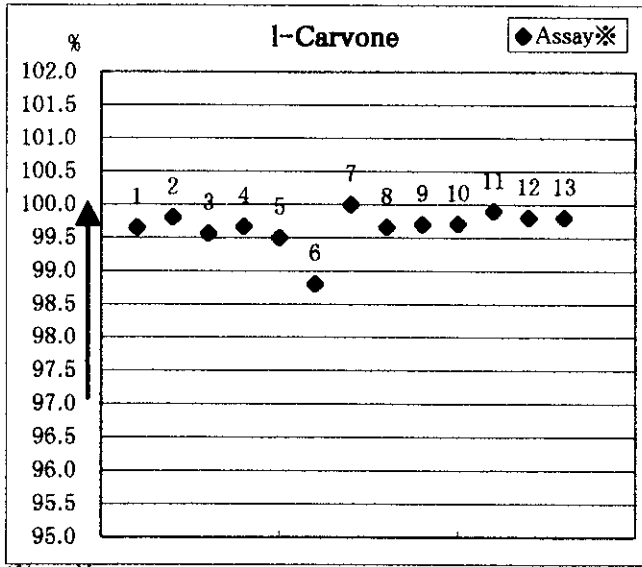


[4] l-Carvone

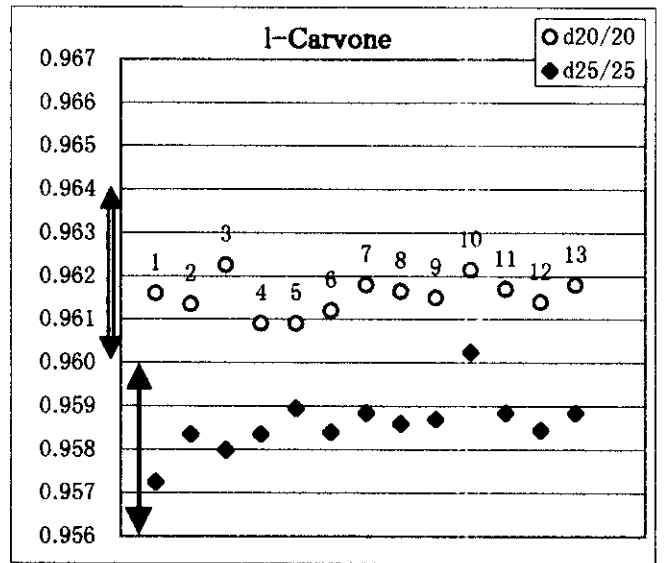
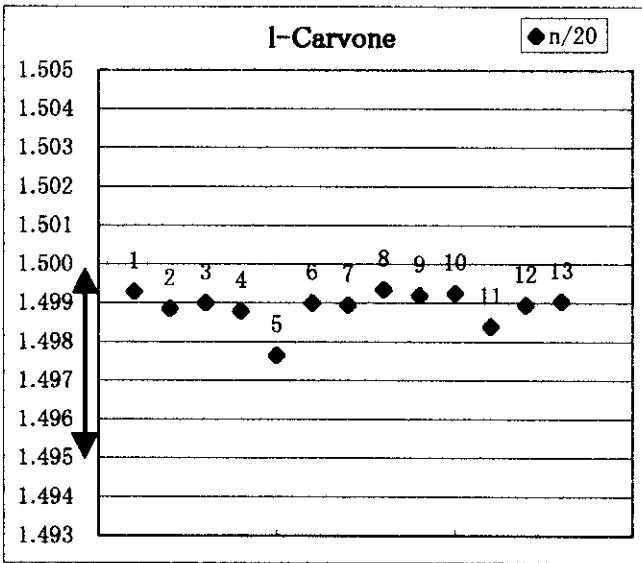
試料番号	Assay※	n/20	d20/20	d25/25	旋光度	Sol/AL※※	注
JECFA上限		1.500	0.964	0.960	-57	溶解する	
JECFA下限	97	1.495	0.960	0.956	-62		
1	99.65	1.4993	0.9616	0.9573	-58.4	YES	
2	99.80	1.4989	0.9614	0.9584		YES	
3	99.56	1.4990	0.9623	0.9580	-58.9	YES	
4	99.67	1.4988	0.9609	0.9584	-59.0	YES	
5	99.50	1.4977	0.9609	0.9590	-57.9	YES	
6	98.80	1.4990	0.9612	0.9584	-59.5	YES	
7	100.00	1.4990	0.9618	0.9589	-59.1	YES	
8	99.66	1.4994	0.9617	0.9586	-57.8	YES	
9	99.70	1.4992	0.9615	0.9587	-58.6	YES	
10	99.71	1.4993	0.9622	0.9603	-57.6	YES	
11	99.90	1.4984	0.9617	0.9589	-59.0	YES	
12	99.80	1.4990	0.9614	0.9585	-59.0	YES	
13	99.80	1.4991	0.9618	0.9589	-59.0	YES	
Average	99.66	1.4989	0.9616	0.9586	-58.6		

※ GC法

※※1ml in 2ml 70% Ethanol (at 25℃)



※GC法

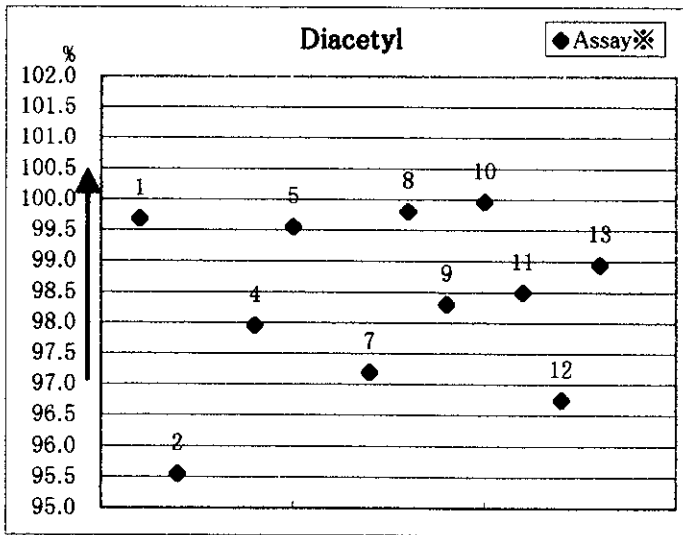


[5] Diacetyl

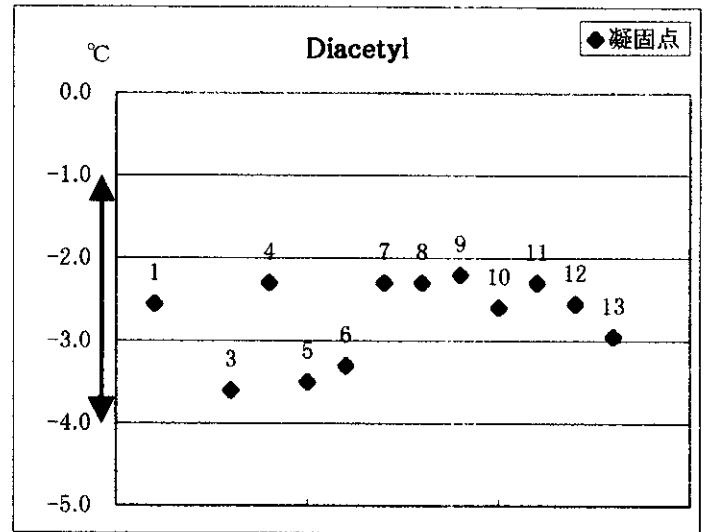
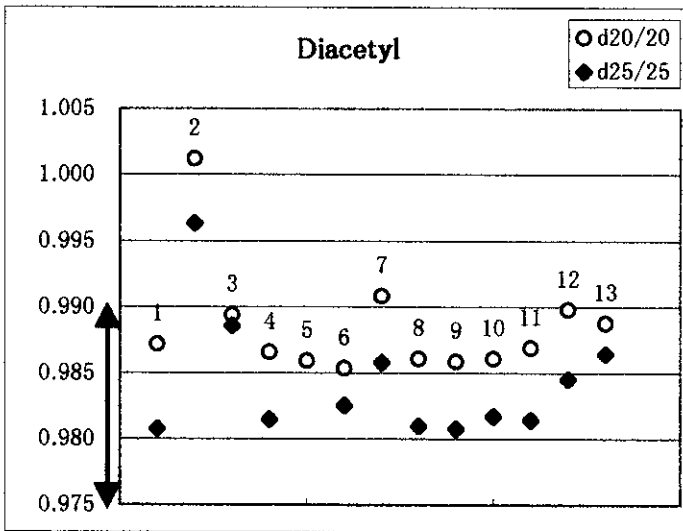
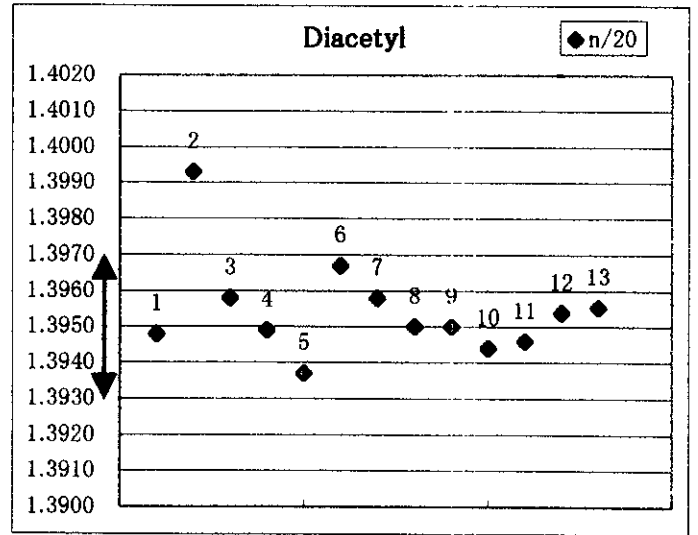
試料番号	Assay※	n/20	d20/20	d25/25	凝固点	注
JECFA上限	100.5	1.3970		0.990	-1	
JECFA下限	97	1.3930		0.975	-4	
1	99.68	1.3948	0.9872	0.9808	-2.55	
2	95.55	1.3993	1.0012	0.9964	不可	
3		1.3958	0.9894	0.9886	-3.6	
4	97.95	1.3949	0.9866	0.9815	-2.3	
5	99.55	1.3937	0.9860		-3.5	注-1
6		1.3967	0.9854	0.9826	-3.3	
7	97.19	1.3958	0.9909	0.9858	-2.3	
8	99.81	1.3950	0.9861	0.9810	-2.3	
9	98.30	1.3950	0.9859	0.9808	-2.2	
10	99.97	1.3944	0.9861	0.9818	-2.6	
11	98.50	1.3946	0.9869	0.9815	-2.3	
12	96.75	1.3954	0.9898	0.9846	-2.55	
13	98.95	1.3956	0.9888	0.9865	-2.95	
Average	98.55	1.3952	0.9874	0.9834	-2.72	

※Aldehyde, Ketone法

注-1：凝固点はDSCで測定



※Aldehyde, Ketone法

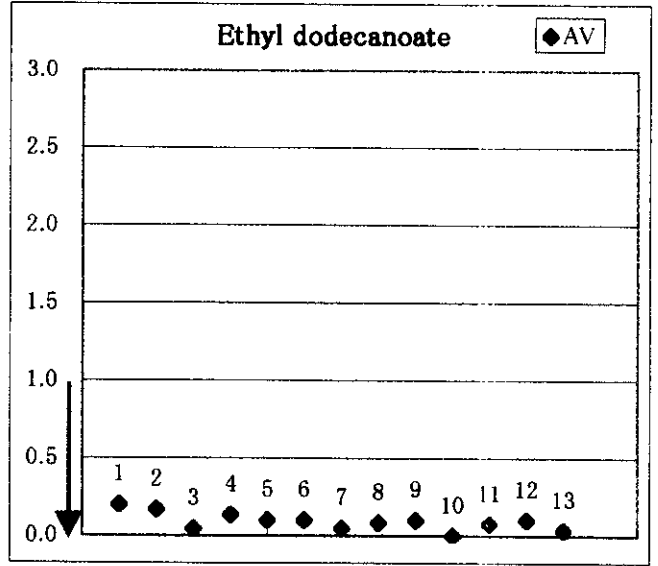
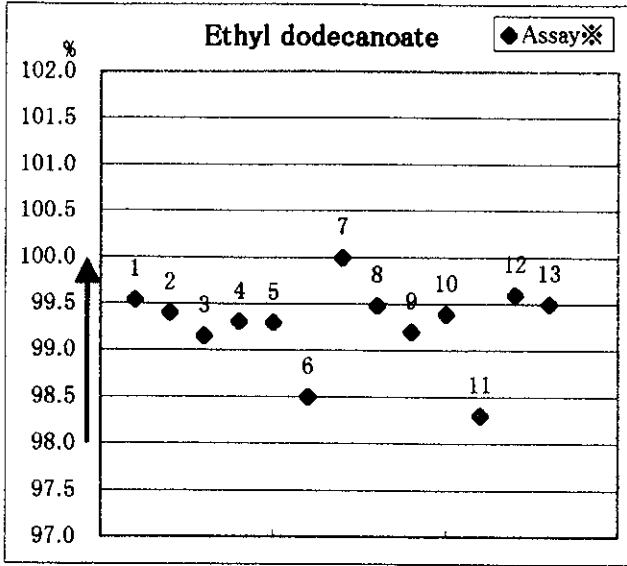


[6] Ethyl dodecanoate(Ethyl laurate)

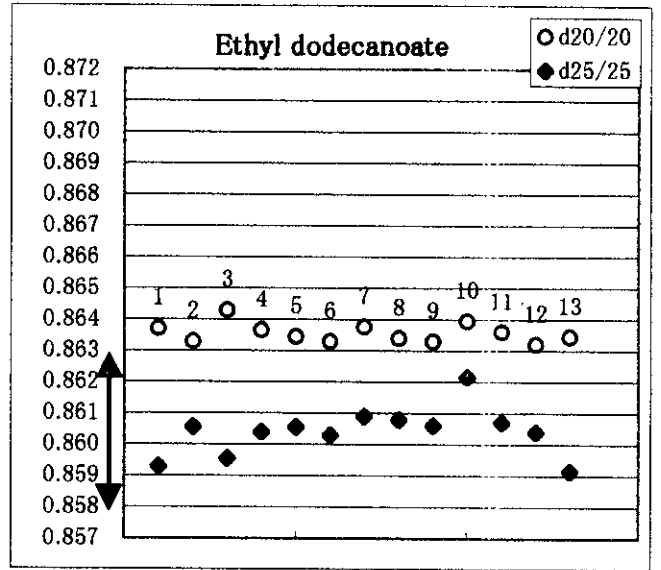
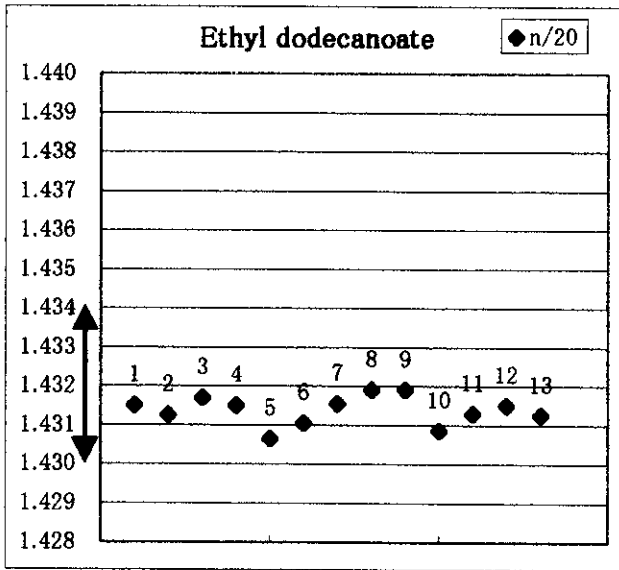
試料番号	Assay※	AV	n/20	d20/20	d25/25	Sol/AL※※	注
JECFA上限		1.0	1.434		0.863	溶解する	
JECFA下限	98		1.430		0.858		
1	99.54	0.20	1.4315	0.8637	0.8593	YES	
2	99.40	0.17	1.4313	0.8633	0.8606	YES	
3	99.15	0.05	1.4317	0.8643	0.8596	YES	
4	99.31	0.14	1.4315	0.8637	0.8604	YES	
5	99.30	0.10	1.4307	0.8635	0.8606	NO	
6	98.50	0.10	1.4311	0.8633	0.8603	YES	
7	100.00	0.05	1.4316	0.8638	0.8609	YES	
8	99.48	0.09	1.4319	0.8634	0.8608	YES	
9	99.20	0.10	1.4319	0.8633	0.8606	NO	
10	99.39	0.00	1.4309	0.8640	0.8622	YES	
11	98.30	0.08	1.4313	0.8636	0.8607	YES	
12	99.60	0.10	1.4315	0.8632	0.8604	YES	
13	99.50	0.04	1.4313	0.8635	0.8592	YES	
Average	99.28	0.092	1.4314	0.8636	0.8604		

※GC法

※※1ml in 9ml 80% Ethanol



※GC法

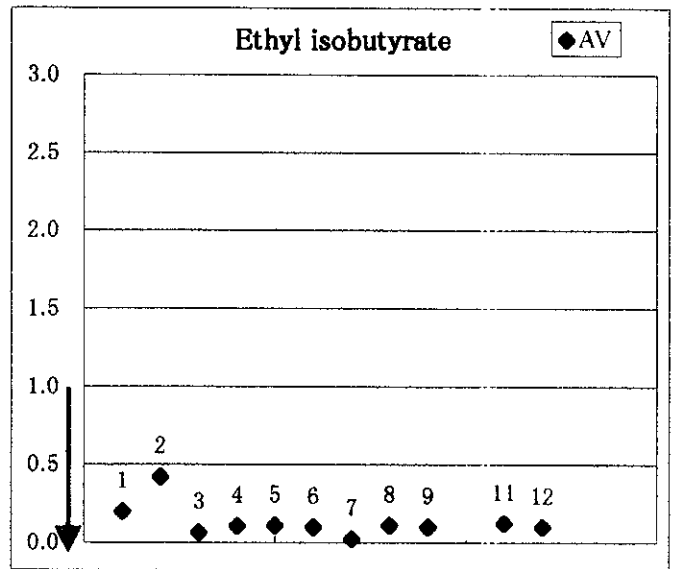
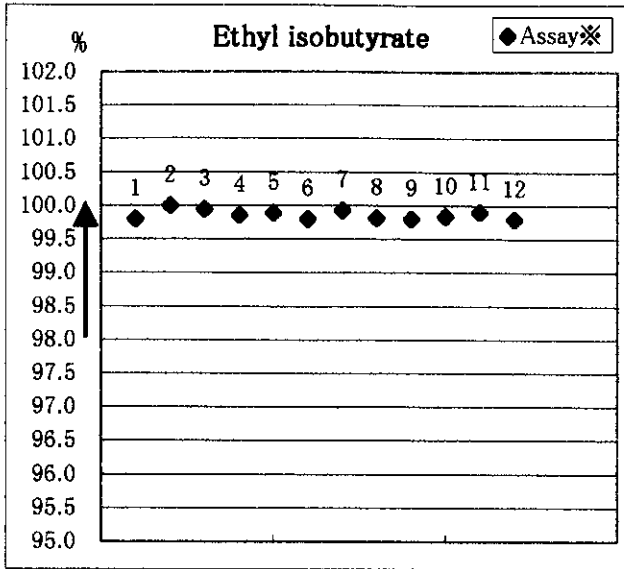


[7] Ethyl isobutyrate

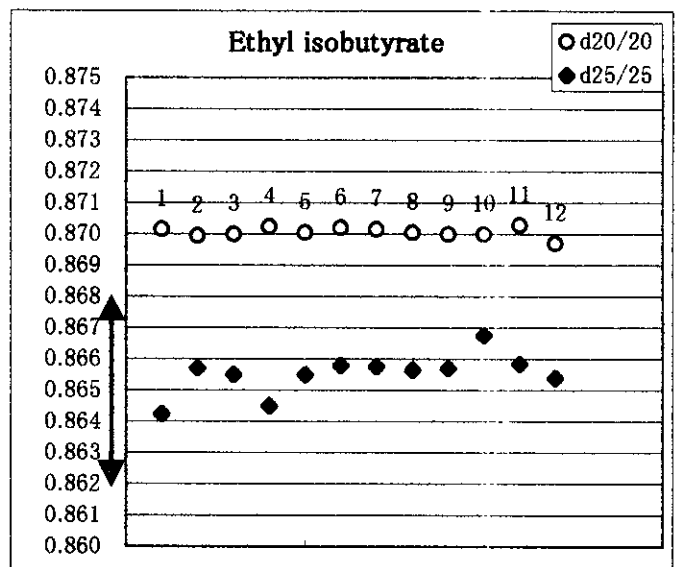
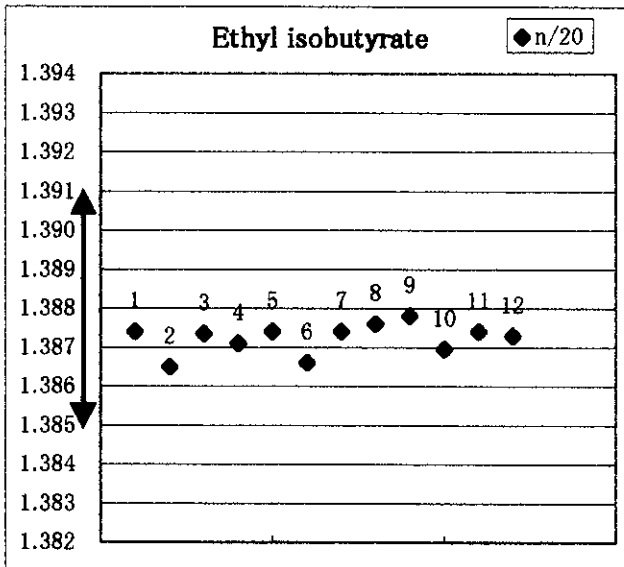
試料番号	Assay※	AV	n/20	d20/20	d25/25	Sol/AL※※	注
JECFA上限		1.0	1.391		0.868	溶解する	
JECFA下限	98.0		1.385		0.862		
1	99.80	0.20	1.3874	0.8702	0.8643	YES	
2	100.00	0.42	1.3865	0.8700	0.8657	YES	
3	99.94	0.07	1.3874	0.8700	0.8655	YES	
4	99.85	0.11	1.3871	0.8703	0.8645	YES	
5	99.89	0.11	1.3874	0.8701	0.8655	YES	
6	99.80	0.10	1.3866	0.8702	0.8658	YES	
7	99.93	0.03	1.3874	0.8702	0.8658	YES	
8	99.81	0.11	1.3876	0.8701	0.8657	YES	
9	99.80	0.10	1.3878	0.8700	0.8657	YES	
10	99.84		1.3870	0.8700	0.8668	YES	
11	99.90	0.13	1.3874	0.8703	0.8659	YES	
12	99.80	0.10	1.3873	0.8697	0.8654	YES	
Average	99.86	0.13	1.3872	0.8701	0.8655		

※GC法

※※1ml in 1ml 95% Ethanol



※GC法



[8] Ethyl lactate

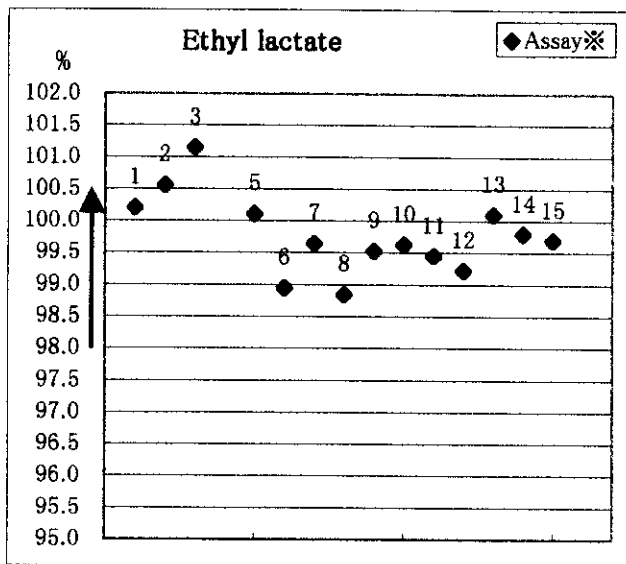
試料番号	Assay※	AV	n/20	d20/20	d25/25	Ethanol	CCl ₄	Non vol	注
JECFA上限	100.5	1.0	1.420	1.036	1.033	1	0.01	0.01	
JECFA下限	98		1.410	1.031	1.028				
1	100.20	0.13	1.4129	1.0334	1.0306	0.42	<0.5		
2	100.56	0.20	1.4130	1.0355	1.0297	0.02	<0.002		注-1
3	101.15	1.15	1.4128	1.0347	1.0309				
4		0.04	1.4129	1.0355	1.0316				
5	100.11	0.65	1.4130	1.0355	1.0299	0.11	<0.01		
6	98.95	0.22	1.4130	1.0353	1.0311	0.037	<0.001		注-2
7	99.65	1.50	1.4126	1.0378	1.0344	<1	<0.01		
8	98.85	0.56	1.4131	1.0351	1.0307				
9	99.53	0.20	1.4130	1.0359	1.0316	<0.1	<0.0001		注-3
10	99.63	0.73	1.4131	1.0351	1.0311	<1	<0.01	0	
11	99.45		1.4135	1.0356	1.0314	0.021		0.5	
12	99.23	0.10	1.4131	1.0349	1.0318	<0.02	<0.02		
13	100.10	0.14	1.4129	1.0356	1.0312				
14	99.80	0.20	1.4130	1.0353	1.0310	0.0245	<0.002	1	
15	99.70	0.13	1.4128	1.0355	1.0312	0.02	<0.002		
Average	99.545	0.40	1.4130	1.0356	1.0314				

※Ester法

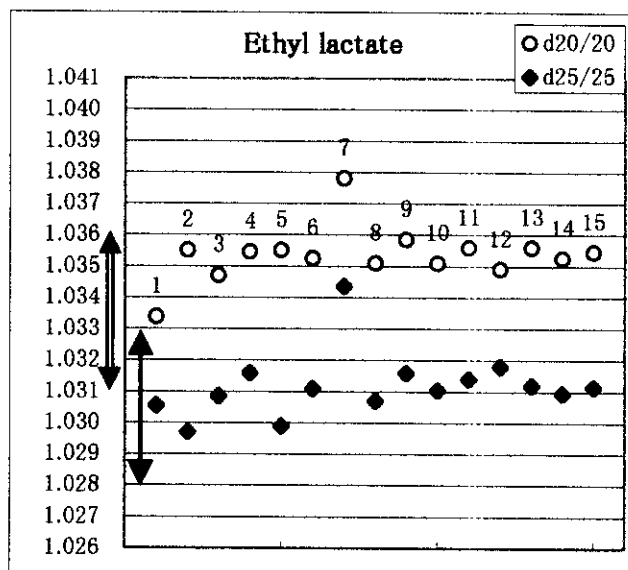
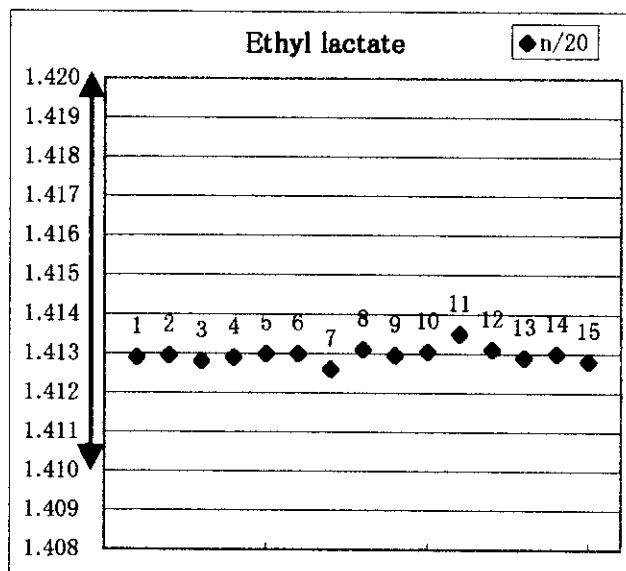
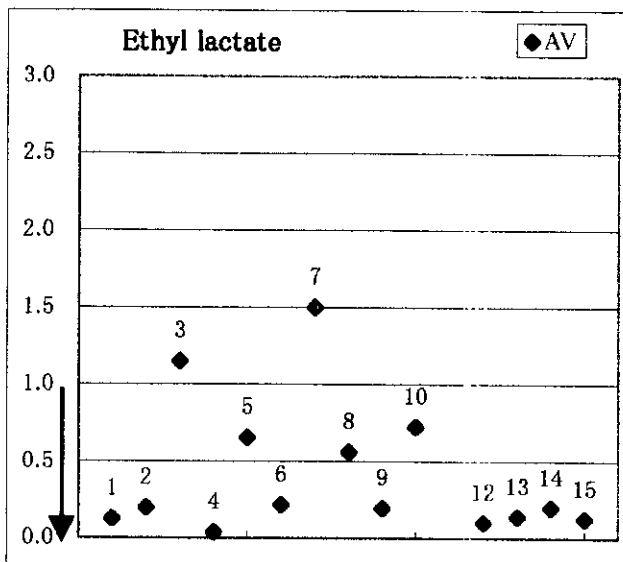
注-1 : CCl₄は検出限界0.002で検出しない。

注-2 : EthanolおよびCCl₄はGC-MS法による。

注-3 : CCl₄はGC-MS法による。



※Ester法

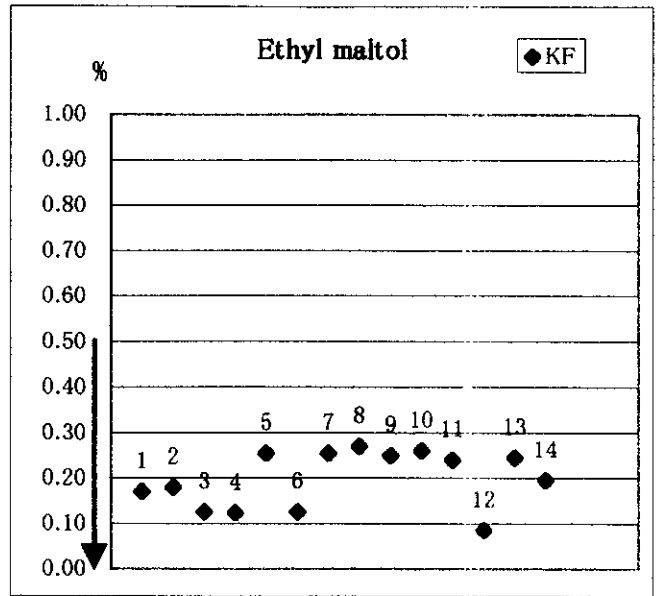
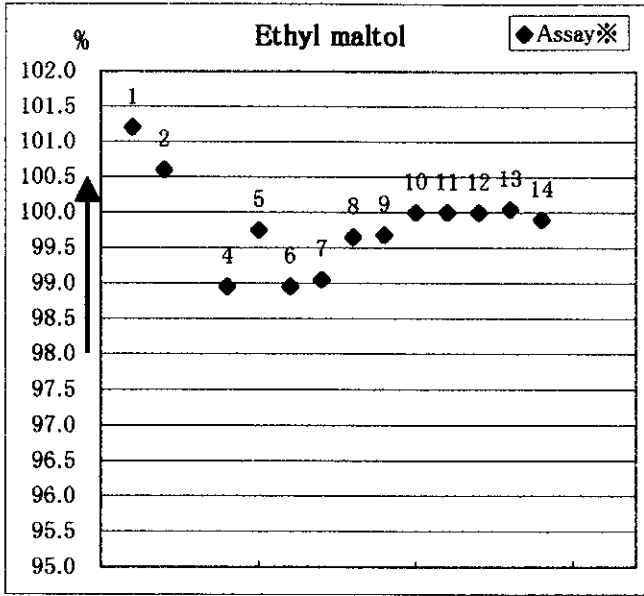


[9] Ethyl maltol

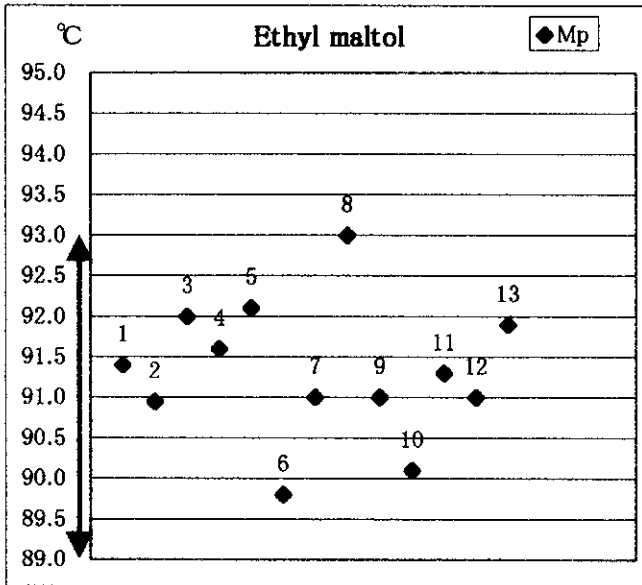
試料番号	Assay※	Mp	KF	S-ash	As	Pb	HM	注
JECFA上限	100.5	93	0.5	0.2	3	10	20	
JECFA下限	98	89						
1	101.2	91.40	0.17	<0.03	<0.4	<10	<20	
2	100.6	90.95	0.18	<0.03	<0.4	<10	<20	
3		92.00	0.13	<0.2	<0.4	<1	<2	
4	99.0	91.60	0.12	0.013	<0.1		<20	
5	99.8	92.10	0.26	0.055	<0.1	<2	<10	
6	99.0	89.80	0.13	0.02	0.2	0.2	5.4	
7	99.1	91.00	0.26	<0.03	<0.4			
8	99.7	93.00	0.27	<0.2	<1	<1	<10	注-1
9	99.7	91.00	0.25	0	<0.5	<2	<5	
10	100.0	90.10	0.26	0.035	<0.1	1.5	<2	
11	100.0	91.30	0.24	0.01	0.02	≦10	≦20	
12	100.0	91.00	0.09	0.009	<0.2		<4	
13	100.1	91.90	0.25	<0.005	<0.1	<0.1	<5	
14	99.9		0.20	0.06	0.08	<0.1	<1.0	
Average	99.6	91.3	0.20					

※吸光度法

注-1 : MpはDSCによる。



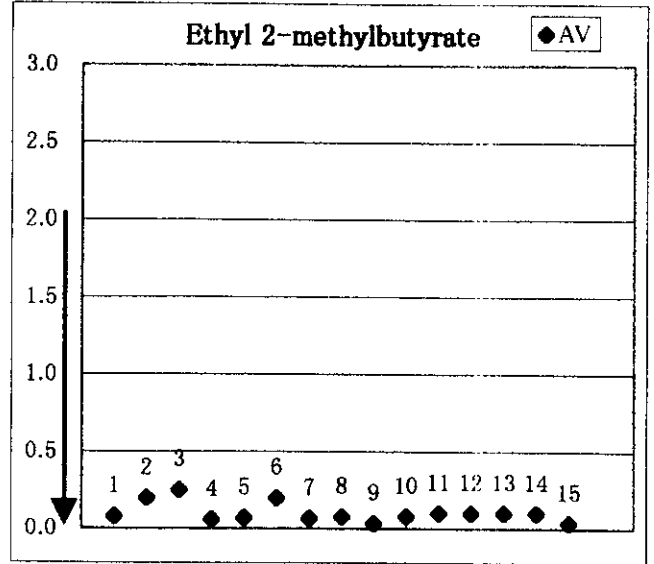
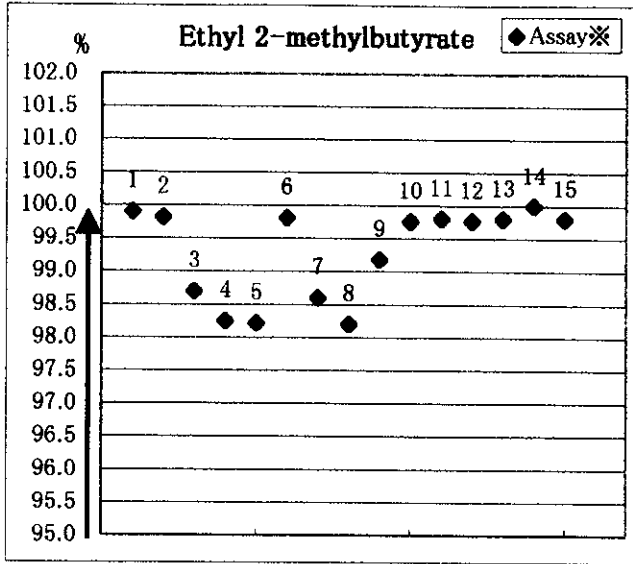
※吸光度法



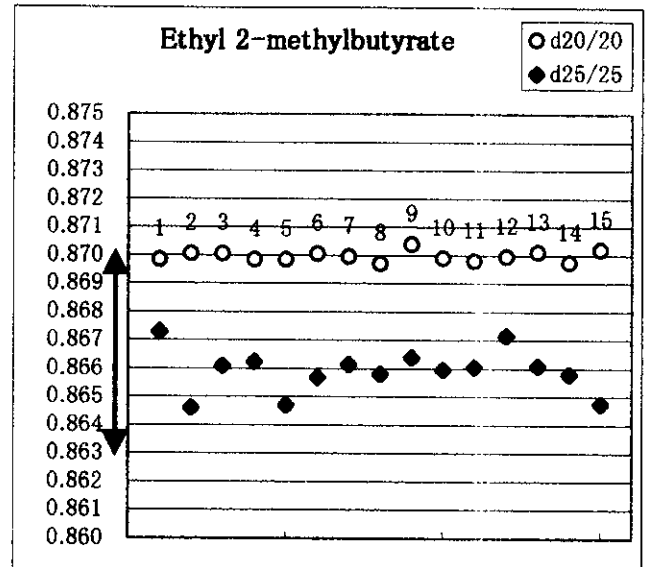
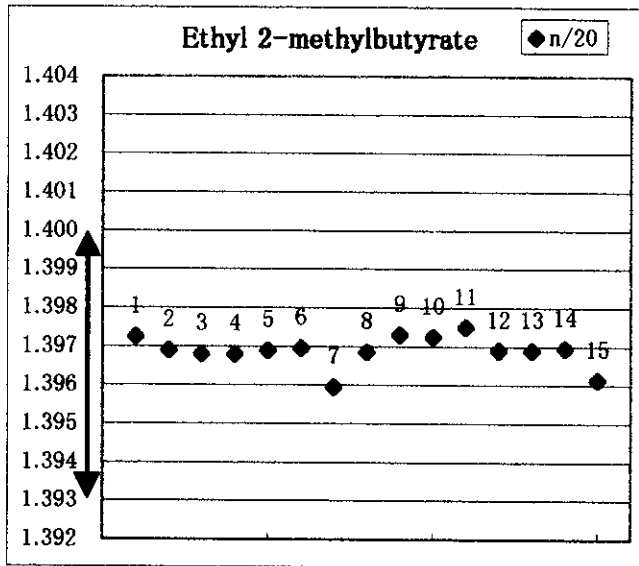
[10] Ethyl 2-methylbutyrate

試料番号	Assay※	AV	n/20	d20/20	d25/25	注
JECFA上限		2.0	1.400		0.870	
JECFA下限	95.0		1.393		0.863	
1	99.90	0.08	1.3973	0.8698	0.8673	
2	99.82	0.20	1.3969	0.8701	0.8646	
3	98.70	0.25	1.3968	0.8701	0.8661	
4	98.25	0.06	1.3968	0.8699	0.8663	
5	98.22	0.07	1.3969	0.8699	0.8647	
6	99.81	0.20	1.3970	0.8701	0.8657	
7	98.60	0.07	1.3960	0.8700	0.8662	
8	98.20	0.08	1.3969	0.8697	0.8658	
9	99.18	0.04	1.3973	0.8704	0.8664	
10	99.76	0.08	1.3973	0.8699	0.8660	
11	99.80	0.10	1.3975	0.8698	0.8661	
12	99.77	0.10	1.3969	0.8700	0.8672	
13	99.80	0.10	1.3969	0.8701	0.8661	
14	100.00	0.10	1.3970	0.8698	0.8658	
15	99.80	0.04	1.3962	0.8702	0.8648	
Average	99.31	0.10	1.3969	0.8700	0.8659	

※GC法



※GC法

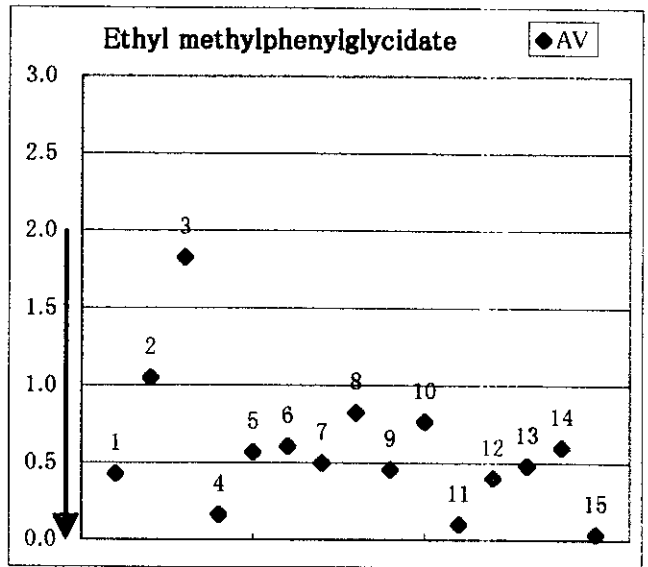
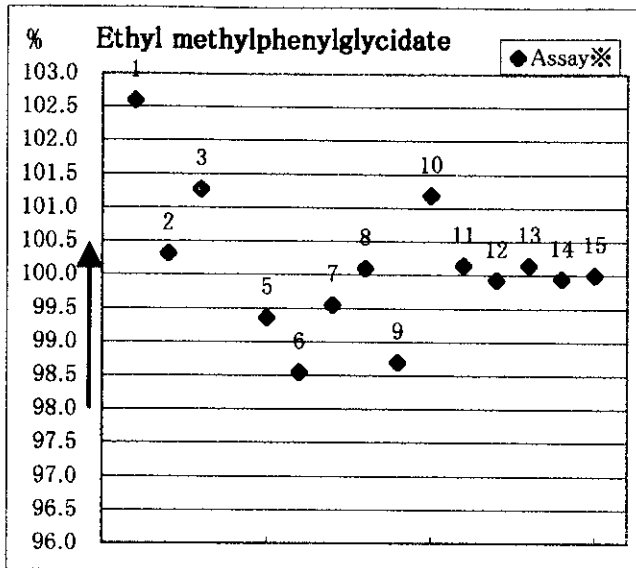


[11] Ethyl methylphenylglycidate

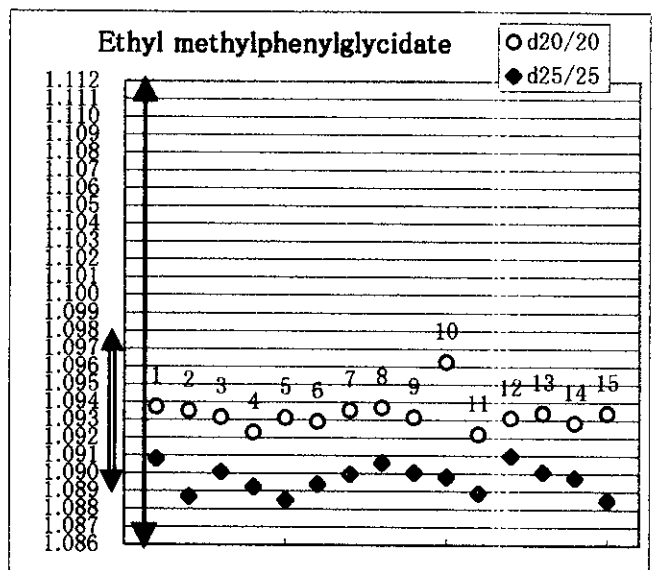
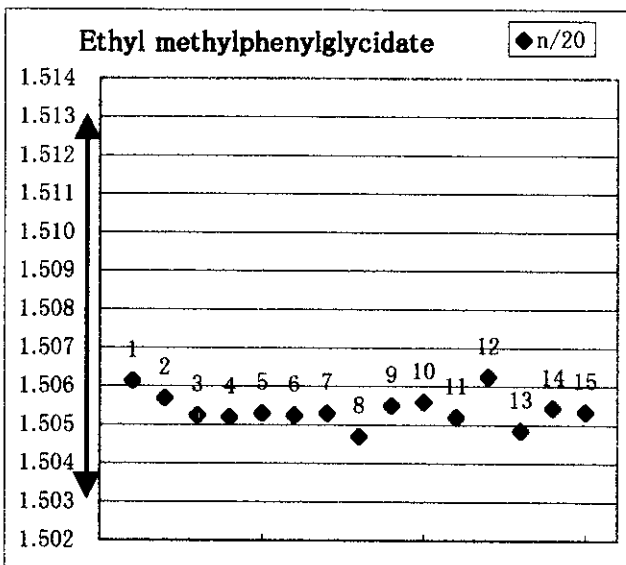
試料番号	Assay※	AV	n/20	d20/20	d25/25	Sol/AL※※	注
JECFA上限	100.5	2.0	1.513	1.098	1.112	溶解する	
JECFA下限	98.00		1.503	1.089	1.086		
1	102.60	0.43	1.5062	1.0937	1.0908	YES	
2	100.32	1.05	1.5057	1.0935	1.0887	YES	
3	101.27	1.83	1.5053	1.0932	1.0901	YES	
4		0.17	1.5052	1.0923	1.0893		
5	99.36	0.57	1.5053	1.0931	1.0885	YES	
6	98.55	0.61	1.5053	1.0929	1.0894	YES	
7	99.55	0.50	1.5053	1.0936	1.0900	YES	
8	100.10	0.83	1.5047	1.0937	1.0906	YES	
9	98.70	0.46	1.5055	1.0932	1.0901	YES	
10	101.19	0.77	1.5056	1.0963	1.0898	YES	
11	100.15	0.10	1.5052	1.0922	1.0889	YES	
12	99.93	0.40	1.5063	1.0931	1.0910	YES	
13	100.15	0.48	1.5049	1.0934	1.0901	YES	
14	99.95	0.60	1.5055	1.0929	1.0898	YES	
15	100.00	0.04	1.5054	1.0934	1.0885	YES	
Average	100.13	0.59	1.5054	1.0934	1.0897		

※ Ester法

※※1ml in 3.5ml 70% Ethanol



※Ester法

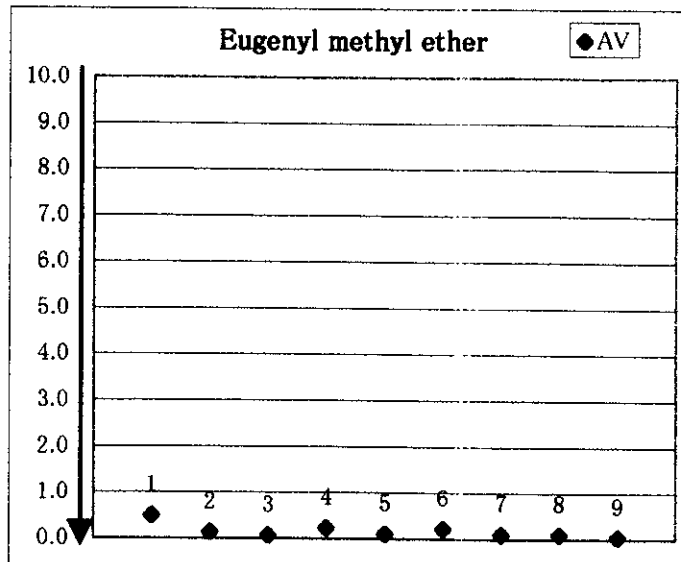
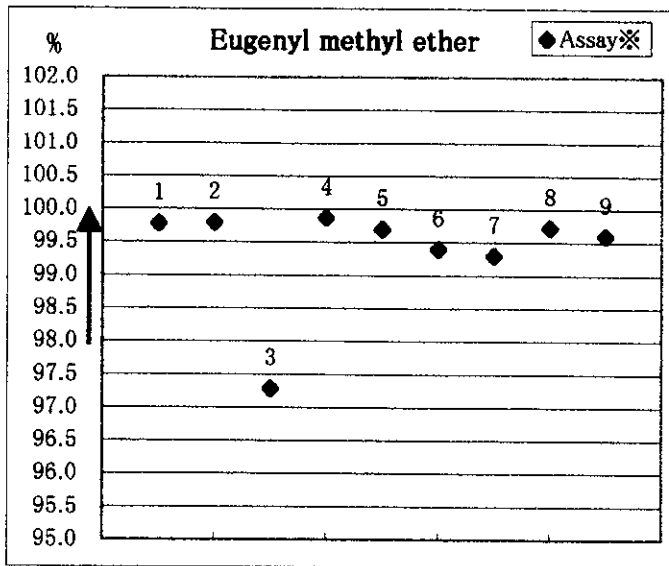


[12] Eugenyl methyl ether

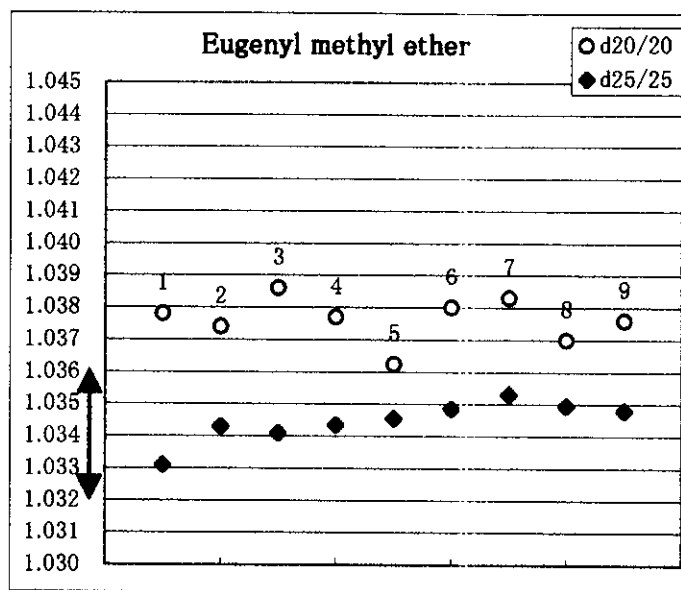
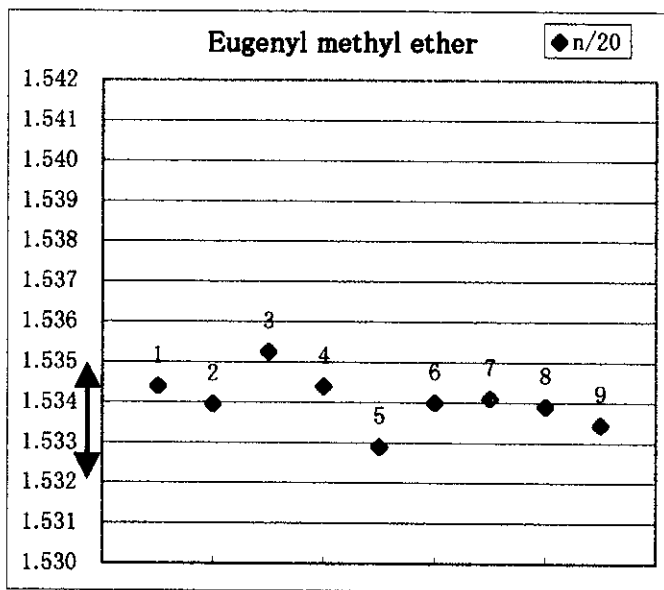
試料番号	Assay※	AV	n/20	d20/20	d25/25	Sol/AL※※	注
JECFA上限		10.0	1.535		1.036	溶解する	
JECFA下限	98		1.532		1.032		
1	99.78	0.50	1.5344	1.0378	1.0331	YES	
2	99.80	0.14	1.5340	1.0374	1.0343	YES	
3	97.28	0.07	1.5353	1.0386	1.0341	YES	
4	99.87	0.23	1.5344	1.0377	1.0344	YES	
5	99.70	0.10	1.5329	1.0363	1.0346	YES	
6	99.40	0.22	1.5340	1.0380	1.0349	YES	
7	99.30	0.10	1.5341	1.0383	1.0353	YES	
8	99.72	0.10	1.5339	1.0370	1.0350	YES	
9	99.60	0.05	1.5335	1.0376	1.0348	YES	
Average	99.38	0.17	1.5340	1.0376	1.0345		

※ GC法

※※1ml in 2ml 70% Ethanol (at 25°C)



※GC法



[13] Geranyl butyrate

試料番号	Assay※	AV	n/20	d20/20	d25/25	Sol/AL※※	注
JECFA上限	100.5	1.0	1.462		0.904	溶解する	
JECFA下限	92.0		1.455		0.889		
1	102.30	0.65	1.4607	0.9020	0.8995	YES	
2	98.74	0.55	1.4603	0.9020	0.8976	YES	注-1
3	101.95	0.30	1.4600	0.9013	0.8980	YES	
4		0.15	1.4608	0.9027			
5	98.51	0.51	1.4603	0.9026	0.8983	YES	
6	93.20	0.31	1.4601	0.9015	0.8987	YES	
7	98.85	0.60	1.4598	0.9028	0.8997	YES	
8	99.40	0.16	1.4601	0.9018	0.8988	YES	
9	100.29	0.13	1.4605	0.9014	0.8983	YES	
10	99.10	0.18	1.4605	0.9027	0.8993	YES	
11	99.64	0.40	1.4603	0.9027	0.9017	YES	
12	100.30	0.26	1.4599	0.9022	0.8992	YES	
13	99.80	0.10	1.4601	0.9015	0.8987	YES	
14	99.85	0.03	1.4597	0.9011	0.8968	YES	
Average	99.38	0.31	1.4602	0.9020	0.8988		

※ Ester法

※※1ml in 6ml 80% Ethanol

注-1 : GC法でGeranyl butyrate 61.4%
 Neryl butyrate 22.9%
 Citronellyl butyrate 4.5%