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## LAMPIRAN

Lampiran 1. Data pengukuran pH emulsi minyak canola (o/w), uji ANOVA

Perlakuan	ulangan	pH	rata-rata
C1 Minyak 30% + X1 gum xhantan 0,1%	ulangan 1	7.0	7.1
C1 Minyak 30% + X1 gum xhantan 0,1%	ulangan 2	7.2	
C1 Minyak 30% + X1 gum xhantan 0,1%	ulangan 3	7.2	
C1 Minyak 30% + X2 gum xhantan 0,5%	ulangan 1	7.2	7.3
C1 Minyak 30% + X2 gum xhantan 0,5%	ulangan 2	7.3	
C1 Minyak 30% + X2 gum xhantan 0,5%	ulangan 3	7.3	
C2 minyak 40% + X1 gum xhantan 0,1%	ulangan 1	6.4	6.4
C2 minyak 40% + X1 gum xhantan 0,1%	ulangan 2	6.3	
C2 minyak 40% + X1 gum xhantan 0,1%	ulangan 3	6.5	
C2 minyak 40% + X2 gum xhantan 0,5%	ulangan 1	6.4	6.5
C2 minyak 40% + X2 gum xhantan 0,5%	ulangan 2	6.3	
C2 minyak 40% + X2 gum xhantan 0,5%	ulangan 3	6.8	

## ANOVA

### Between-Subjects Factors

		Value Label	N
Minyak Kanola	1	A1	6
	2	A2	6
Gum xhantan	1	B1	6
	2	B2	6

**Tests of Between-Subjects Effects**

Dependent Variable:pH

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1,729 <sup>a</sup>	3	,576	23,851	,000
Intercept	558,968	1	558,968	23129,690	,000
MinyakKanola	1,688	1	1,688	69,828	,000
Gumxhantan	,041	1	,041	1,690	,230
MinyakKanola * Gumxhantan	,001	1	,001	,034	,857
Error	,193	8	,024		
Total	560,890	12			
Corrected Total	1,922	11			

a. R Squared = ,899 (Adjusted R Squared = ,862)

Lampiran 2. Data pengukuran kestabilan emulsi minyak canola (o/w), uji ANOVA

Perlakuan	ulangan	berat sebelum cetrifuse (gram)	berat setelah cetrifuse (gram)	kestabilan emulsi (%)	rata-rata (%)
C1 Minyak 30% + X1 gum xhantan 0,1%	ulangan 1	72.0273	63.1161	87.6	90.0
C1 Minyak 30% + X1 gum xhantan 0,1%	ulangan 2	71.8918	63.9445	88.9	
C1 Minyak 30% + X1 gum xhantan 0,1%	ulangan 3	72.129	67.4111	93.5	
C1 Minyak 30% + X2 gum xhantan 0,5%	ulangan 1	71.8572	71.183	99.1	99.3
C1 Minyak 30% + X2 gum xhantan 0,5%	ulangan 2	71.6057	71.1791	99.4	
C1 Minyak 30% + X2 gum xhantan 0,5%	ulangan 3	71.0302	70.6143	99.4	
C2 minyak 40% + X1 gum xhantan 0,1%	ulangan 1	72.1554	68.4933	94.9	95.7
C2 minyak 40% + X1 gum xhantan 0,1%	ulangan 2	70.8862	68.0713	96.0	
C2 minyak 40% + X1 gum xhantan 0,1%	ulangan 3	72.3186	69.6052	96.2	
C2 minyak 40% + X2 gum xhantan 0,5%	ulangan 1	71.1867	70.9135	99.6	99.4
C2 minyak 40% + X2 gum xhantan 0,5%	ulangan 2	71.3047	70.8277	99.3	
C2 minyak 40% + X2 gum xhantan 0,5%	ulangan 3	72.1644	71.5557	99.2	

ANOVA

**Between-Subjects Factors**

	Value	Label	N
Minyak Kanola	1	A1	6
	2	A2	6
Gum xhantan	1	B1	6
	2	B2	6

### Tests of Between-Subjects Effects

Dependent Variable: Kestabilan Emulsi

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	174.842 <sup>a</sup>	3	58.281	22.915	.000
Intercept	110803.301	1	110803.301	43566.173	.000
MinyakKanola	24.941	1	24.941	9.806	.014
Gumxhantan	126.101	1	126.101	49.581	.000
MinyakKanola * Gumxhantan	23.801	1	23.801	9.358	.016
Error	20.347	8	2.543		
Total	110998.490	12			
Corrected Total	195.189	11			

a. R Squared = .896 (Adjusted R Squared = .857)

Lampiran 3. Data pengukuran viskositas emulsi minyak canola (o/w), ANOVA

Perlakuan	ulangan	Viskositas (cP)	rata-rata (poise)
C1 Minyak 30% + X1 gum xhantan 0,1%	ulangan 1	1148.0	1150.3
C1 Minyak 30% + X1 gum xhantan 0,1%	ulangan 2	1153.0	
C1 Minyak 30% + X1 gum xhantan 0,1%	ulangan 3	1150.0	
C1 Minyak 30% + X2 gum xhantan 0,5%	ulangan 1	32094.0	32091.3
C1 Minyak 30% + X2 gum xhantan 0,5%	ulangan 2	32100.0	
C1 Minyak 30% + X2 gum xhantan 0,5%	ulangan 3	32080.0	
C2 minyak 40% + X1 gum xhantan 0,1%	ulangan 1	612.0	618.0
C2 minyak 40% + X1 gum xhantan 0,1%	ulangan 2	620.0	
C2 minyak 40% + X1 gum xhantan 0,1%	ulangan 3	622.0	
C2 minyak 40% + X2 gum xhantan 0,5%	ulangan 1	22230.0	22226.0
C2 minyak 40% + X2 gum xhantan 0,5%	ulangan 2	22228.0	
C2 minyak 40% + X2 gum xhantan 0,5%	ulangan 3	22220.0	

## ANOVA

### Between-Subjects Factors

		Value Label	N
Minyak Kanola	1	A1	6
	2	A2	6
Gum xhantan	1	B1	6
	2	B2	6

### Tests of Between-Subjects Effects

Dependent Variable: Viskositas

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2217460321.58 3 <sup>a</sup>	3	739153440.528	17633879.297	.000
Intercept	2359201504.08 3	1	2359201504.08 3	56283137.274	.000
MinyakKanola	81083604.083	1	81083604.083	1934400.097	.000
Gumxhantan	2071048050.75 0	1	2071048050.75 0	49408701.012	.000
MinyakKanola * Gumxhantan	65328666.750	1	65328666.750	1558536.781	.000
Error	335.333	8	41.917		
Total	4576662161.00 0	12			
Corrected Total	2217460656.91 7	11			

a. R Squared = 1.000 (Adjusted R Squared = 1.000)

Lampiran 4. Data pengukuran *Particle size analyzer* (PSA) emulsi minyak canola (o/w)

perlakuan	ukuran droplet Z-average (nm)
C1X1	9449
C1X2	12410
C2X1	3506
C2X2	8101

# Size Distribution Report by Volume

v2.2



## Sample Details

**Sample Name:** average 86  
**SOP Name:** mansettings.nano  
**General Notes:** Average result created from record number(s): 1 2 3

<b>File Name:</b> ADM 22-IL.dts	<b>Dispersant Name:</b> Water
<b>Record Number:</b> 4	<b>Dispersant RI:</b> 1.330
<b>Material RI:</b> 1.47	<b>Viscosity (cP):</b> 0.8872
<b>Material Absorbtion:</b> 0.100	<b>Measurement Date and Time:</b> Thursday, February 27, 202...

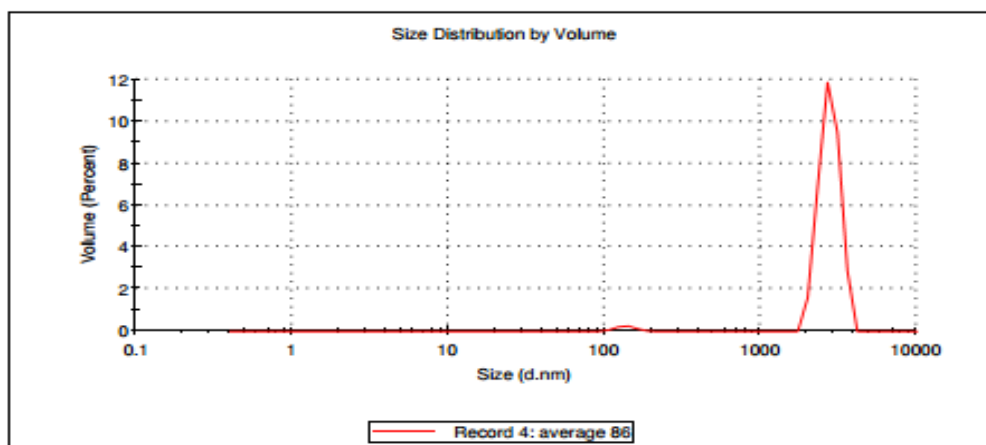
## System

<b>Temperature (°C):</b> 25.0	<b>Duration Used (s):</b> 80
<b>Count Rate (kcps):</b> 97.0	<b>Measurement Position (mm):</b> 4.65
<b>Cell Description:</b> Disposable sizing cuvette	<b>Attenuator:</b> 7

## Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
<b>Z-Average (d.nm):</b> 9449	<b>Peak 1:</b> 2762	98.0	408.1
<b>Pdl:</b> 0.557	<b>Peak 2:</b> 137.5	2.0	18.99
<b>Intercept:</b> 1.04	<b>Peak 3:</b> 0.000	0.0	0.000

**Result quality:** Refer to quality report





# Size Distribution Report by Volume

v2.2



## Sample Details

**Sample Name:** average 87  
**SOP Name:** mansettings.nano  
**General Notes:** Average result created from record number(s): 5 6 7

<b>File Name:</b> ADM 22-II.dts	<b>Dispersant Name:</b> Water
<b>Record Number:</b> 8	<b>Dispersant RI:</b> 1.330
<b>Material RI:</b> 1.47	<b>Viscosity (cP):</b> 0.8872
<b>Material Absorbtion:</b> 0.100	<b>Measurement Date and Time:</b> Thursday, February 27, 202...

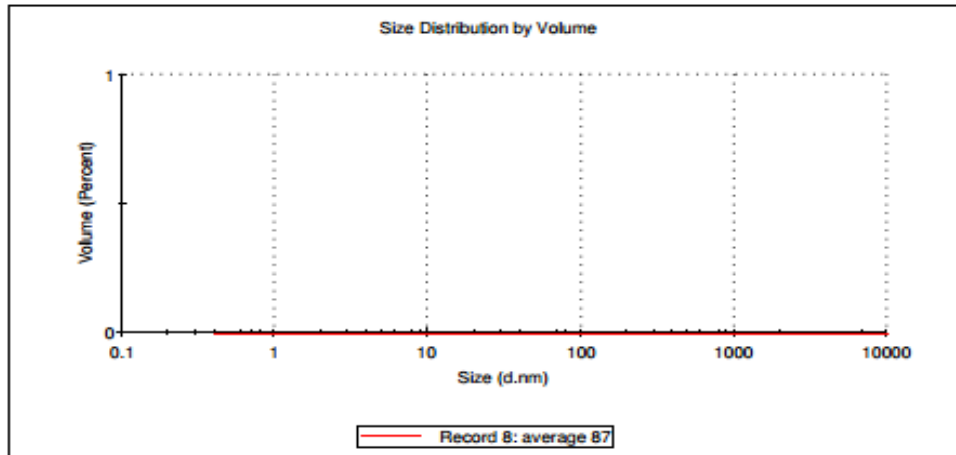
## System

<b>Temperature (°C):</b> 25.0	<b>Duration Used (s):</b> 60
<b>Count Rate (kcps):</b> 70.8	<b>Measurement Position (mm):</b> 4.65
<b>Cell Description:</b> Disposable sizing cuvette	<b>Attenuator:</b> 6

## Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
<b>Z-Average (d.nm):</b> 1.241e4	<b>Peak 1:</b> 0.000	0.0	0.000
<b>PdI:</b> 0.207	<b>Peak 2:</b> 0.000	0.0	0.000
<b>Intercept:</b> 0.830	<b>Peak 3:</b> 0.000	0.0	0.000

**Result quality :** Refer to quality report



# Size Distribution Report by Volume

v2.2



## Sample Details

**Sample Name:** average 88  
**SOP Name:** mansettings.nano  
**General Notes:** Average result created from record number(s): 9 10 11

<b>File Name:</b> ADM 22-IL.dts	<b>Dispersant Name:</b> Water
<b>Record Number:</b> 12	<b>Dispersant RI:</b> 1.330
<b>Material RI:</b> 1.47	<b>Viscosity (cP):</b> 0.8872
<b>Material Absorbtion:</b> 0.100	<b>Measurement Date and Time:</b> Thursday, February 27, 202...

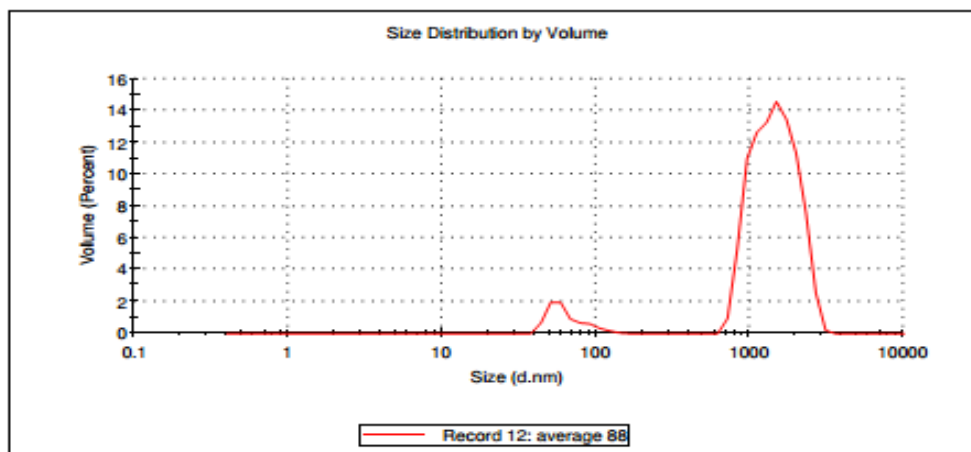
## System

<b>Temperature (°C):</b> 25.0	<b>Duration Used (s):</b> 150
<b>Count Rate (kcps):</b> 50.0	<b>Measurement Position (mm):</b> 4.65
<b>Cell Description:</b> Disposable sizing cuvette	<b>Attenuator:</b> 7

## Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
<b>Z-Average (d.nm):</b> 3506	<b>Peak 1:</b> 65.05	7.3	19.19
<b>Pdl:</b> 0.714	<b>Peak 2:</b> 1493	92.7	476.6
<b>Intercept:</b> 0.895	<b>Peak 3:</b> 0.000	0.0	0.000

**Result quality:** Refer to quality report



# Size Distribution Report by Volume

v2.2



## Sample Details

Sample Name: average 89

SOP Name: mansettings.nano

General Notes: Average result created from record number(s): 18 19 20

File Name: ADM 22-IL.dts	Dispersant Name: Water
Record Number: 21	Dispersant RI: 1.330
Material RI: 1.47	Viscosity (cP): 0.8872
Material Absorbtion: 0.100	Measurement Date and Time: Thursday, February 27, 202...

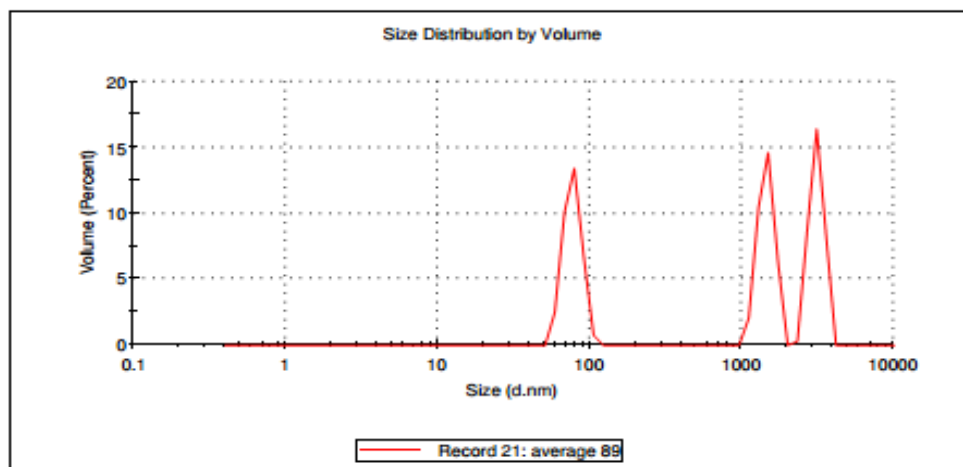
## System

Temperature (°C): 25.0	Duration Used (s): 70
Count Rate (kcps): 393.3	Measurement Position (mm): 4.65
Cell Description: Disposable sizing cuvette	Attenuator: 8

## Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm): 8101	Peak 1: 3094	33.3	329.9
PdI: 0.350	Peak 2: 1441	33.3	173.7
Intercept: 0.795	Peak 3: 77.16	33.3	10.48

Result quality : Refer to quality report



Pengkodean sampel emulsi minyak canola (o/w) pada analisa *Particle size analyzer* (PSA)

Kode	Nama Sampel
86	C1X1
87	C1X2
88	C2X1
89	C2X2

Lampiran 5. Hasil analisa lemak gel distribusi spasial lemak, ANOVA, dan uji lanjut

jenis gel	ulangan	kadar lemak	rata-rata (%)
GHT1	ulangan 1	1.66	3.09
	ulangan 2	2.10	
	ulangan 3	5.52	
GHM1	ulangan 1	2.68	2.91
	ulangan 2	3.03	
	ulangan 3	3.01	
GHT2	ulangan 1	4.38	3.20
	ulangan 2	2.17	
	ulangan 3	3.06	
GHM2	ulangan 1	5	3.84
	ulangan 2	1.54	
	ulangan 3	4.97	
GHM3	ulangan 1	2.54	2.47
	ulangan 2	2.30	
	ulangan 3	2.58	

Keterangan : GHM3 (gel distribusi homogen emulsi minyak canola 15%)  
 GHM2 (gel distribusi homogen emulsi minyak canola 20%)  
 GHT2 (gel distribusi heterogen emulsi minyak canola 20% dan 10%)  
 GHM1 (gel distribusi homogen emulsi minyak canola 5%)  
 GHT1 (gel distribusi heterogen emulsi minyak canola 10 dan 0%)

**ANOVA**  
**Between-Subjects Factors**

	Value	Label	N
komposisi dan volume gel	1.00	gel 1	3
	2.00	gel 2	3
	3.00	gel 3	3
	4.00	gel 4	3
	5.00	gel 5	3

**Multivariate Tests<sup>a</sup>**

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	1.000	54545.043 <sup>b</sup>	2.000	9.000	.000
	Wilks' Lambda	.000	54545.043 <sup>b</sup>	2.000	9.000	.000
	Hotelling's Trace	12121.121	54545.043 <sup>b</sup>	2.000	9.000	.000
	Roy's Largest Root	12121.121	54545.043 <sup>b</sup>	2.000	9.000	.000
formulasi	Pillai's Trace	.982	2.411	8.000	20.000	.053
	Wilks' Lambda	.104	4.719 <sup>b</sup>	8.000	18.000	.003
	Hotelling's Trace	7.768	7.768	8.000	16.000	.000
	Roy's Largest Root	7.660	19.149 <sup>c</sup>	4.000	10.000	.000

a. Design: Intercept + formulasi

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

### Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	kadar lemak	2.950 <sup>a</sup>	4	.738	.379	.818
	kadar air	61.904 <sup>b</sup>	4	15.476	18.813	.000
Intercept	kadar lemak	144.398	1	144.398	74.285	.000
	kadar air	99606.042	1	99606.042	121079.980	.000
formulasi	kadar lemak	2.950	4	.738	.379	.818
	kadar air	61.904	4	15.476	18.813	.000
Error	kadar lemak	19.438	10	1.944		
	kadar air	8.226	10	.823		
Total	kadar lemak	166.787	15			
	kadar air	99676.173	15			
Corrected Total	kadar lemak	22.389	14			
	kadar air	70.131	14			

a. R Squared = .132 (Adjusted R Squared = -.216)

b. R Squared = .883 (Adjusted R Squared = .836)

### kadar lemak

Duncan<sup>a,b</sup>

komposisi dan volume gel	N	Subset 1
gel 5	3	2.4733
gel 2	3	2.9067
gel 1	3	3.0933
gel 3	3	3.2033
gel 4	3	3.8367
Sig.		.295

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 1.944.

a. Uses Harmonic Mean Sample Size = 3.000.

b. Alpha = .05.

Lampiran 6. Hasil analisa kadar air gel distribusi spasial lemak, ANOVA, dan uji lanjut.

jenis gel	ulangan	kadar air	rata-rata (%)
GHT1	ulangan 1	84.44	84.17
	ulangan 2	84.36	
	ulangan 3	83.70	
GHM1	ulangan 1	81.03	82.67
	ulangan 2	83.41	
	ulangan 3	83.58	
GHT2	ulangan 1	83.02	81.64
	ulangan 2	81.16	
	ulangan 3	80.73	
GHM2	ulangan 1	77.87	78.07
	ulangan 2	78.16	
	ulangan 3	78.18	
GHM3	ulangan 1	80.17	80.90
	ulangan 2	81.17	
	ulangan 3	81.35	

Keterangan : GHM3 (gel distribusi homogen emulsi minyak canola 15%)  
 GHM2 (gel distribusi homogen emulsi minyak canola 20%)  
 GHT2 (gel distribusi heterogen emulsi minyak canola 20% dan 10%)  
 GHM1 (gel distribusi homogen emulsi minyak canola 5%)  
 GHT1 (gel distribusi heterogen emulsi minyak canola 10 dan 0%)

#### ANOVA

##### Between-Subjects Factors

	Value Label	N
komposisi dan volume gel	1.00 gel 1	3
	2.00 gel 2	3
	3.00 gel 3	3
	4.00 gel 4	3
	5.00 gel 5	3

### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	1.000	54545.043 <sup>b</sup>	2.000	9.000	.000
	Wilks' Lambda	.000	54545.043 <sup>b</sup>	2.000	9.000	.000
	Hotelling's Trace	12121.121	54545.043 <sup>b</sup>	2.000	9.000	.000
	Roy's Largest Root	12121.121	54545.043 <sup>b</sup>	2.000	9.000	.000
formulasi	Pillai's Trace	.982	2.411	8.000	20.000	.053
	Wilks' Lambda	.104	4.719 <sup>b</sup>	8.000	18.000	.003
	Hotelling's Trace	7.768	7.768	8.000	16.000	.000
	Roy's Largest Root	7.660	19.149 <sup>c</sup>	4.000	10.000	.000

a. Design: Intercept + formulasi

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

### Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	kadar lemak	2.950 <sup>a</sup>	4	.738	.379	.818
	kadar air	61.904 <sup>b</sup>	4	15.476	18.813	.000
Intercept	kadar lemak	144.398	1	144.398	74.285	.000
	kadar air	99606.042	1	99606.042	121079.980	.000
formulasi	kadar lemak	2.950	4	.738	.379	.818
	kadar air	61.904	4	15.476	18.813	.000
Error	kadar lemak	19.438	10	1.944		
	kadar air	8.226	10	.823		
Total	kadar lemak	166.787	15			
	kadar air	99676.173	15			
Corrected Total	kadar lemak	22.389	14			
	kadar air	70.131	14			

a. R Squared = .132 (Adjusted R Squared = -.216)

b. R Squared = .883 (Adjusted R Squared = .836)



### kadar air

Duncan<sup>a,b</sup>

komposisi dan volume gel	N	Subset			
		1	2	3	4
gel 4	3	78.0700			
gel 5	3		80.8967		
gel 3	3		81.6367	81.6367	
gel 2	3			82.6733	82.6733
gel 1	3				84.1667
Sig.		1.000	.341	.192	.071

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .823.

a. Uses Harmonic Mean Sample Size = 3.000.

b. Alpha = .05.

Lampiran 7. Hasil uji organoleptik gel distribusi spasial lemak, ANOVA, dan uji lanjut.

Perlakuan	panelis	keerasan	rata-rata	warna	rata-rata	kekenyalan	rata-rata
GHT1	1	7	6.5	8	7.6	7	6.9
GHT1	2	7		8			
GHT1	3	7		8			
GHT1	4	6		9			
GHT1	5	7		7			
GHT1	6	7		7			
GHT1	7	6		8			
GHT1	8	7		7			
GHT1	9	4		7			
GHT1	10	7		7			
GHM1	1	5	5.5	8	7.4	6	5.3
GHM1	2	6		7			
GHM1	3	6		6			
GHM1	4	6		9			
GHM1	5	6		7			
GHM1	6	6		7			
GHM1	7	5		8			
GHM1	8	5		8			
GHM1	9	4		7			
GHM1	10	6		7			
GHT2	1	6	4.3	7	5.9	7	4.6
GHT2	2	4		5			
GHT2	3	4		3			
GHT2	4	3		7			
GHT2	5	4		6			
GHT2	6	6		7			
GHT2	7	4		7			
GHT2	8	4		7			
GHT2	9	5		6			
GHT2	10	3		4			
GHM2	1	7	7.4	7	7.1	7	7.2
GHM2	2	7		7			
GHM2	3	7		7			
GHM2	4	7		7			
GHM2	5	8		7			
GHM2	6	7		7			
GHM2	7	8		7			

GHM2	8	8		7		7	
GHM2	9	8		8		7	
GHM2	10	7		7		7	
GHM3	1	5		7		5	
GHM3	2	6		5		7	
GHM3	3	4		4		6	
GHM3	4	6		7		4	
GHM3	5	7		7		7	
GHM3	6	4		7		3	
GHM3	7	6		8		6	
GHM3	8	7		7		7	
GHM3	9	6		7		6	
GHM3	10	5	5.6	7	6.6	7	5.8

Keterangan : GHM3 (gel distribusi homogen emulsi minyak canola 15%)  
 GHM2 (gel distribusi homogen emulsi minyak canola 20%)  
 GHT2 (gel distribusi heterogen emulsi minyak canola 20% dan 10%)  
 GHM1 (gel distribusi homogen emulsi minyak canola 5%)  
 GHT1 (gel distribusi heterogen emulsi minyak canola 10 dan 0%)

## ANOVA

### Between-Subjects Factors

		Value Label	N
Konsentrasi Lemak	1.00	Lemak 5	10
	2.00	Lemak 2	10
	3.00	Lemak 3	10
	4.00	Lemak 1	10
	5.00	Lemak 4	10

### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.991	1568.759 <sup>b</sup>	3.000	43.000	.000
	Wilks' Lambda	.009	1568.759 <sup>b</sup>	3.000	43.000	.000
	Hotelling's Trace	109.448	1568.759 <sup>b</sup>	3.000	43.000	.000
	Roy's Largest Root	109.448	1568.759 <sup>b</sup>	3.000	43.000	.000
Perlakuan	Pillai's Trace	.883	4.694	12.000	135.000	.000
	Wilks' Lambda	.272	6.048	12.000	114.059	.000
	Hotelling's Trace	2.129	7.391	12.000	125.000	.000
	Roy's Largest Root	1.846	20.764 <sup>c</sup>	4.000	45.000	.000

a. Design: Intercept + Perlakuan

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

### Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Kekerasan	54.120 <sup>a</sup>	4	13.530	16.960	.000
	Warna	18.680 <sup>b</sup>	4	4.670	4.887	.002
	Kekenyalan	47.320 <sup>c</sup>	4	11.830	8.504	.000
Intercept	Kekerasan	1716.980	1	1716.980	2152.203	.000
	Warna	2394.320	1	2394.320	2505.684	.000
	Kekenyalan	1776.080	1	1776.080	1276.735	.000
Perlakuan	Kekerasan	54.120	4	13.530	16.960	.000
	Warna	18.680	4	4.670	4.887	.002
	Kekenyalan	47.320	4	11.830	8.504	.000
Error	Kekerasan	35.900	45	.798		
	Warna	43.000	45	.956		
	Kekenyalan	62.600	45	1.391		
Total	Kekerasan	1807.000	50			
	Warna	2456.000	50			
	Kekenyalan	1886.000	50			
Corrected Total	Kekerasan	90.020	49			
	Warna	61.680	49			
	Kekenyalan	109.920	49			

a. R Squared = .601 (Adjusted R Squared = .566)

b. R Squared = .303 (Adjusted R Squared = .241)

c. R Squared = .430 (Adjusted R Squared = .380)

### Kekerasan

Duncan<sup>a,b</sup>

Konsentrasi Lemak	N	Subset			
		1	2	3	4
Lemak 3	10	4.3000			
Lemak 2	10		5.5000		
Lemak 5	10		5.6000		
Lemak 1	10			6.5000	
Lemak 4	10				7.4000
Sig.		1.000	.803	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .798.

a. Uses Harmonic Mean Sample Size = 10.000.

b. Alpha = .05.

### Warna

Duncan<sup>a,b</sup>

Konsentrasi Lemak	N	Subset		
		1	2	3
Lemak 3	10	5.9000		
Lemak 5	10	6.6000	6.6000	
Lemak 4	10		7.1000	7.1000
Lemak 2	10		7.4000	7.4000
Lemak 1	10			7.6000
Sig.		.116	.090	.288

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .956.

a. Uses Harmonic Mean Sample Size = 10.000.

b. Alpha = .05.

## Kekenyalan

Duncan<sup>a,b</sup>

Konsentrasi Lemak	N	Subset		
		1	2	3
Lemak 3	10	4.6000		
Lemak 2	10	5.3000	5.3000	
Lemak 5	10		5.8000	
Lemak 1	10			6.9000
Lemak 4	10			7.2000
Sig.		.191	.348	.572

Means for groups in homogeneous subsets are displayed.

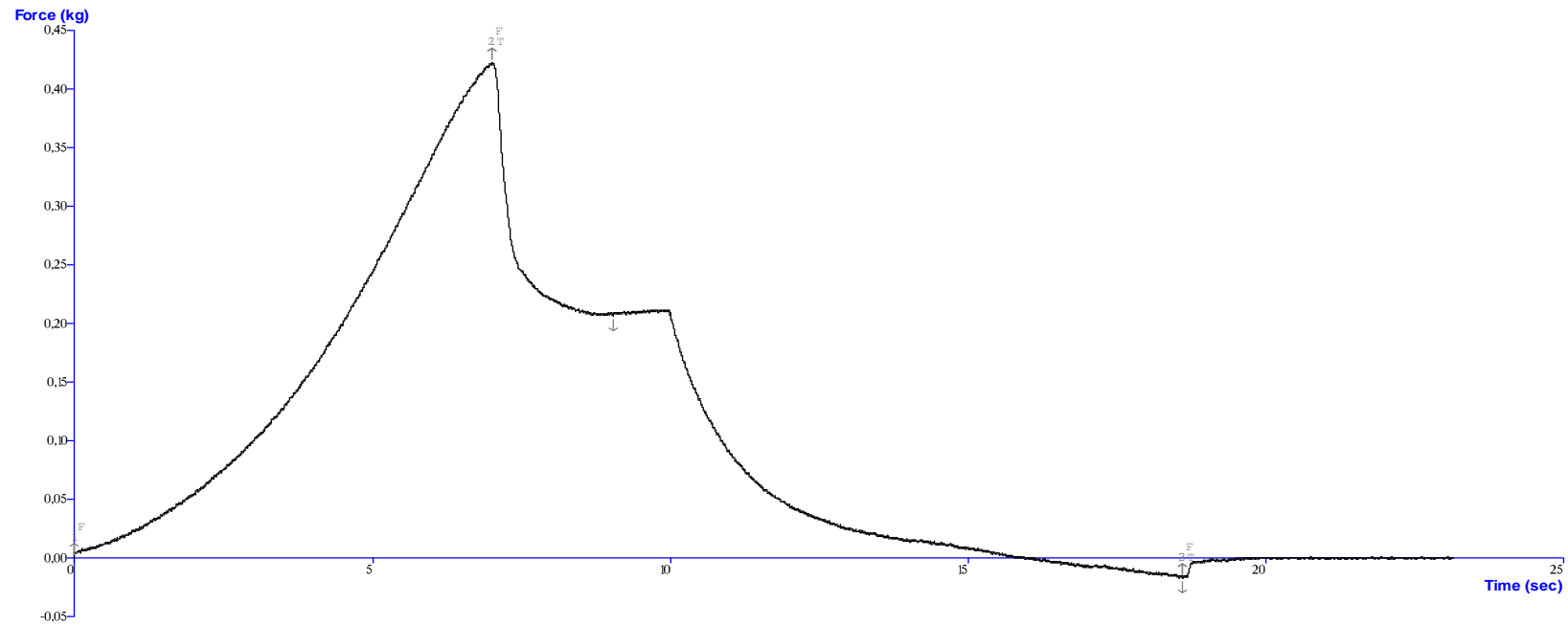
Based on observed means.

The error term is Mean Square(Error) = 1.391.

a. Uses Harmonic Mean Sample Size = 10.000.

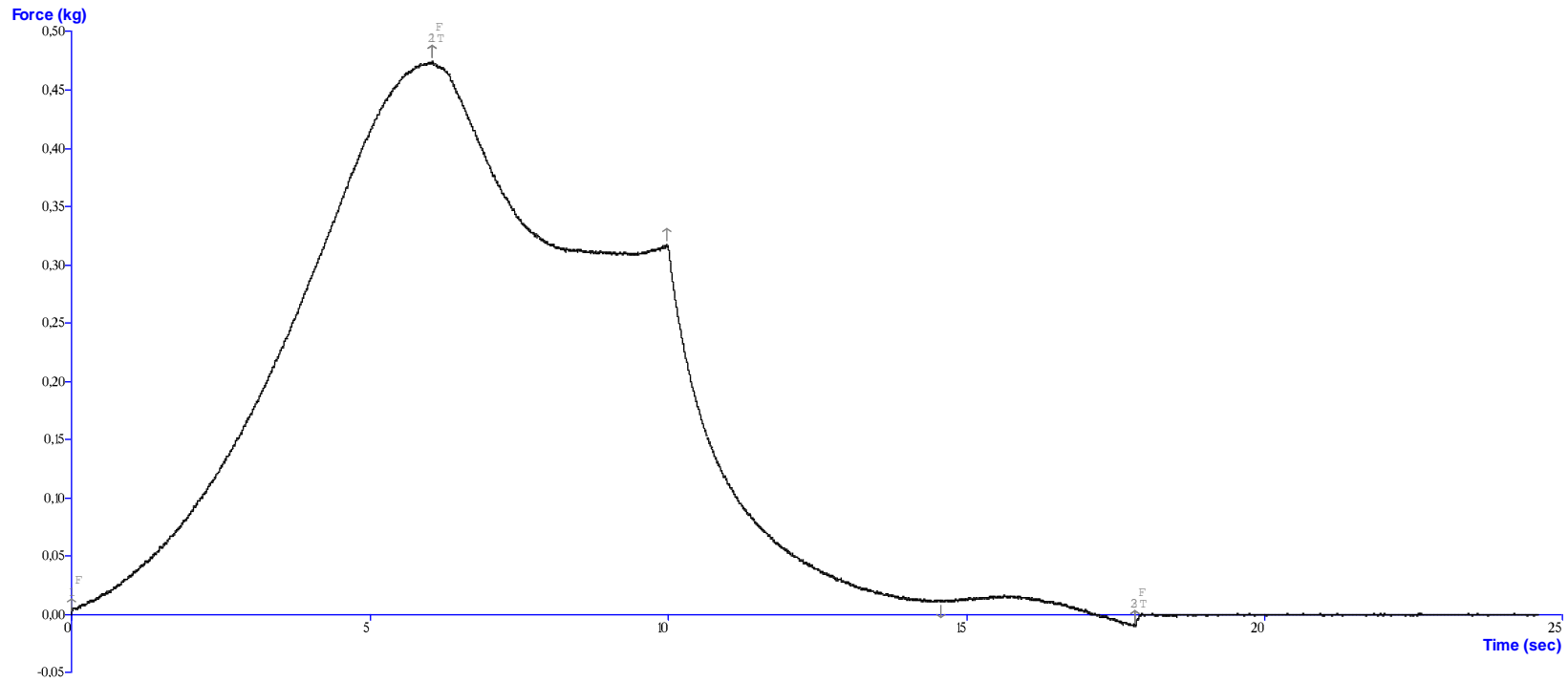
b. Alpha = .05.

Lampiran 8. Hasil analisa kekuatan gel/*gel strenght* dan *adhesiveness* gel distribusi spasial lemak



L1Lemak 1

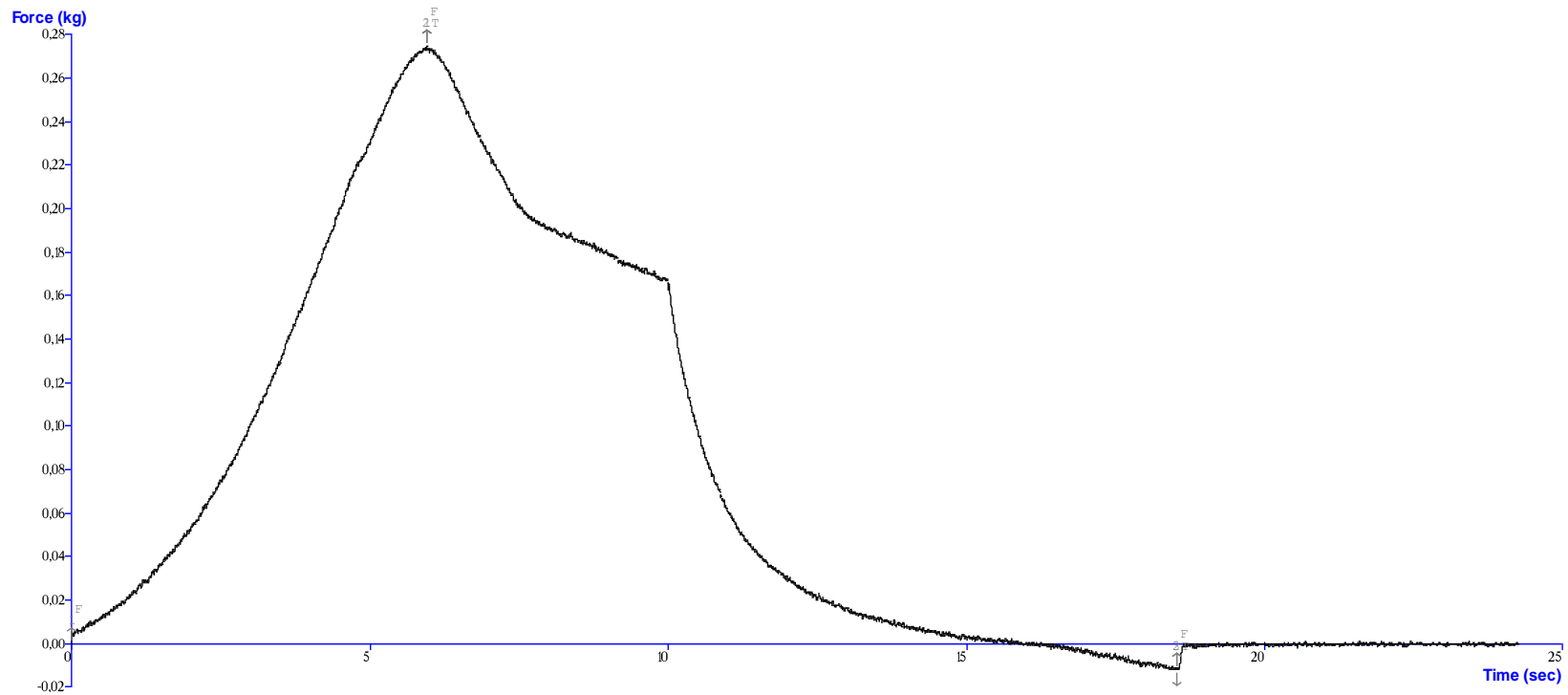
Test ID	Batch		Force 2 (gram)	Distance 1 (mm)	Time 1 (sec)	force 3 (g)/ adhesiveness	Distance 2 (mm)	Time 2 (sec)	p	r	r <sup>2</sup>	A	Gel Strenght (gr/cm2)
Lemak 1 (GHT1)	Unknown		422.472	24.844	7.02	-17.597	30.45	18.615	3.14	0.635	0.403225	12.43954	33.9620
Average	Unknown (F)	AVERAGE ("BATCH")	422.472	24.844	7.02	-17.597	30.45	18.615	3.14	0.635	0.403225	12.43954	33.9620



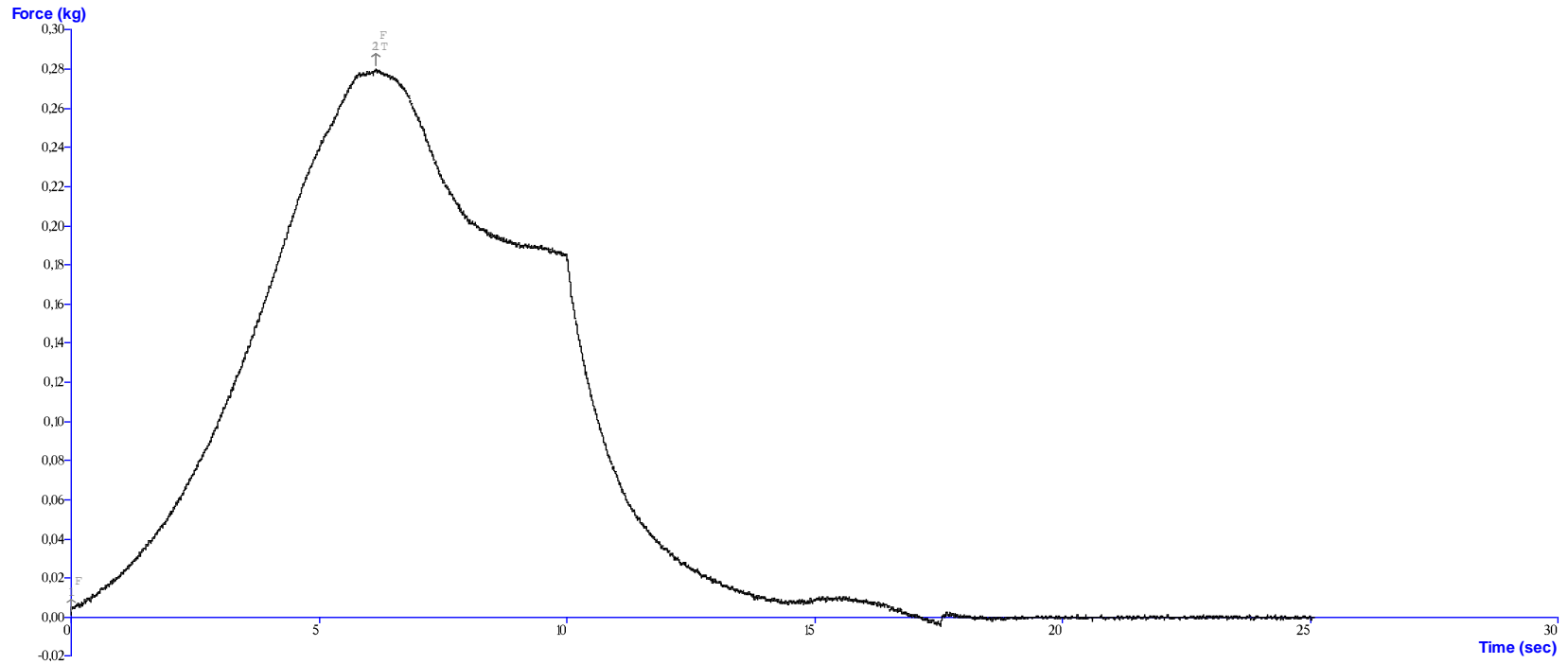
12 Lemak 21

Test ID	Batch		Force 2 (gram)	Distance 1 (mm)	Time 1 (sec)	force 3 (g)/ adhesiveness	Distance 2 (mm)	Time 2 (sec)	p	r	r <sup>2</sup>	A	Gel Strenght (gr/cm2)
Lemak 2 (GHM1)	Unknown		474.845	24.359	6.065	-10.754	28.241	17.845	3.14	0.635	0.403225	12.24614	38.7751
Average	Unknown (F)	AVERAGE ("BATCH")	474.845	24.359	6.065	-10.754	28.241	17.845	3.14	0.635	0.403225	12.24614	38.7751

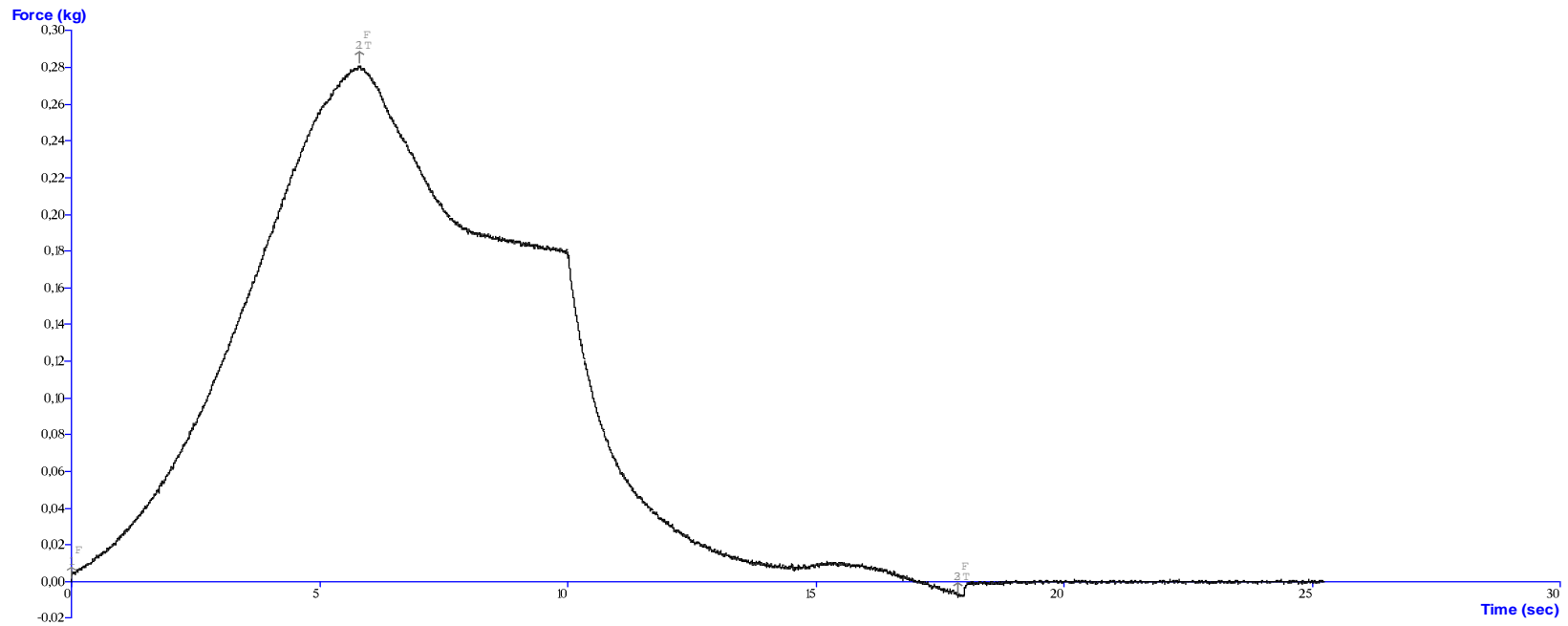




Test ID	Batch		Force 2 (gram)	Distance 1 (mm)	Time 1 (sec)	force 3 (g)/ adhesiveness	Distance 2 (mm)	Time 2 (sec)	p	r	r <sup>2</sup>	A	Gel Strenght (gr/cm2)
Lemak 3 (GHT2)	Unknown		274.921	24.778	5.98	-12.081	29.27	18.54	3.14	0.635	0.403225	12.41322	22.1474
Average	Unknown (F)	AVERAGE ("BATCH")	274.921	24.778	5.98	-12.081	29.27	18.54	3.14	0.635	0.403225	12.41322	22.1474



Test ID	Batch		Force 2 (gram)	Distance 1 (mm)	Time 1 (sec)	force 3 (g)/ adhesiveness	Distance 2 (mm)	Time 2 (sec)	p	r	r <sup>2</sup>	A	Gel Strenght (gr/cm2)
Lemak 4 (GHM2)	Unknown		280.508	23.767	6.17	-5.098	27.464	17.555	3.14	0.635	0.403225	12.01006	23.3561
Average	Unknown (F)	AVERAGE ("BATCH")	280.508	23.767	6.17	-5.098	27.464	17.555	3.14	0.635	0.403225	12.01006	23.3561



Test ID	Batch		Force 2 (gram)	Distance 1 (mm)	Time 1 (sec)	force 3 (g)/ adhesiveness	Distance 2 (mm)	Time 2 (sec)	p	r	r <sup>2</sup>	A	Gel Strenght (gr/cm2)
Lemak 5 (GHM3)	Unknown		281.136	23.973	5.825	-8.729	27.645	17.875	3.14	0.635	0.403225	12.09221	23.2494
Average	Unknown (F)	AVERAGE ("BATCH")	281.136	23.973	5.825	-8.729	27.645	17.875	3.14	0.635	0.403225	12.09221	23.2494

Lampiran 9. Hasil analisa kuat tarik *edible film*

Kuat Tarik			
Perlakuan	ulangan	kuat tarik (N/mm <sup>2</sup> )	rata-rata (N/mm <sup>2</sup> )
<i>edible film</i> tanpa aroma (EFNA)	ulangan 1	6.5176	5.6891
	ulangan 2	6.1673	
	ulangan 3	4.3823	
<i>edible film</i> beraroma (EFA)	ulangan 1	3.0196	3.2845
	ulangan 2	3.7408	
	ulangan 3	3.0930	

Uji T test

**Group Statistics**

	Formulasi Edible Film	N	Mean	Std. Deviation	Std. Error Mean
Kuat Tarik	EFA	3	3.2845	.39690	.22915
	EFNA	3	5.6891	1.14517	.66116

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Kuat Tarik	Equal variances assumed	5.031	.088	-3.436	4	.026	-2.40460	.69975	-4.34741	-.46179
	Equal variances not assumed			-3.436	2.474	.055	-2.40460	.69975	-4.92512	.11592

Lampiran 10. Hasil analisa persen pemanjangan *edible film*

Persen Pemanjangan			
Perlakuan	ulangan	Persen Pemanjangan (%)	rata-rata (%)
<i>edible film</i> tanpa aroma (EFNA)	ulangan 1	47.18	44.17
	ulangan 2	47.41	
	ulangan 3	37.92	
<i>edible film</i> beraroma (EFA)	ulangan 1	26.50	25.32
	ulangan 2	27.41	
	ulangan 3	22.04	

Uji T test

**Group Statistics**

		Formulasi Edible Film	N	Mean	Std. Deviation	Std. Error Mean
Persen	EFA		3	25.3167	2.87392	1.65926
Pemanjangan	EFNA		3	44.1700	5.41388	3.12571

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Persen Pemanjangan	Equal variances assumed	2.697	.176	-5.328	4	.006	-18.85333	3.53881	-28.67865	-9.02802
	Equal variances not assumed			-5.328	3.044	.012	-18.85333	3.53881	-30.02335	-7.68332

Lampiran 11. Hasil analisa ketebalan *edible film*

Perlakuan	ulangan	sudut					rata-rata (mm)	rata-rata (mm)
		atas	samping kanan	samping kiri	bawah	tengah		
<i>edible film</i> tanpa aroma (EFNA)	ulangan 1	0.2	0.2	0.21	0.2	0.2	0.20	0.20
	ulangan 2	0.21	0.2	0.2	0.19	0.19	0.20	
	ulangan 3	0.19	0.2	0.23	0.2	0.21	0.21	
<i>edible film</i> beraroma (EFA)	ulangan 1	0.25	0.19	0.18	0.23	0.19	0.21	0.20
	ulangan 2	0.21	0.16	0.19	0.13	0.16	0.17	
	ulangan 3	0.2	0.32	0.14	0.19	0.2	0.21	

Uji T test

**Group Statistics**

		Formulasi Edible Film	N	Mean	Std. Deviation	Std. Error Mean
Ketebalan Film	EFA		3	.1967	.02309	.01333
	EFNA		3	.2033	.00577	.00333

**Independent Samples Test**

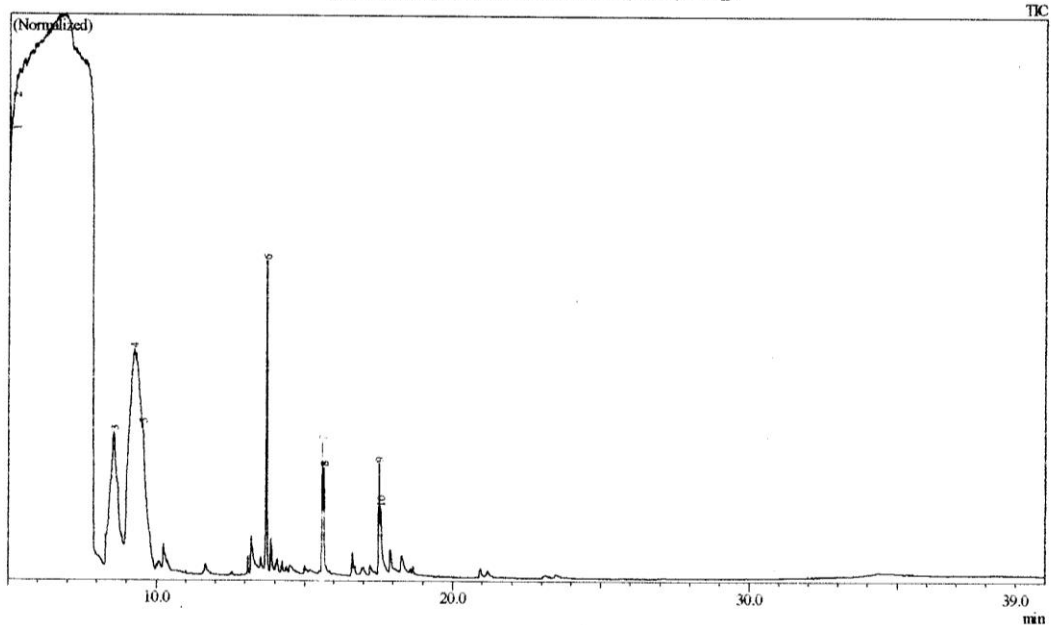
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-taile d)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Ketebalan Film	Equal variances assumed	8.471	.044	-.485	4	.653	-.00667	.01374	-.04483	.03149
	Equal variances not assumed			-.485	2.249	.671	-.00667	.01374	-.05995	.04662

Lampiran 12. Hasil analisa senyawa volatil DIVA *Food Essence* aroma *wijsman butter*

**DATA REPORT GCMS-QP2010 ULTRA SHIMADZU**

Sample Information  
 Analyzed by : Admin  
 Analyzed : 15/10/2020 11:35:40 AM  
 Sample Type : Unknown  
 Level # : 1  
 Sample Name : Wysman  
 Sample ID :  
 IS Amount : [1]-1  
 Sample Amount : 1

Chromatogram Wysman C:\GCMSsolution\Data\Project1\Wysman.qgd

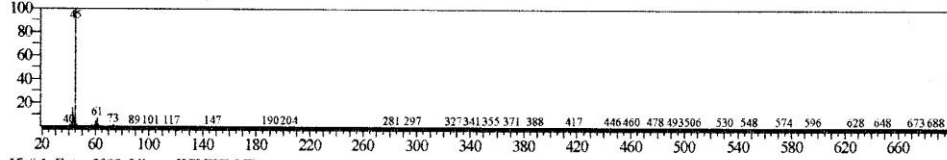


Peak#	R.Time	Area	Area%	A/H	Name
1	5.058	23054453	6.82	4.39	1,2-PROPANEDIOL
2	5.158	22160574	6.56	9.88	ACETIC ACID, METHOXY-
3	8.568	57655444	17.06	16.52	BUTANOIC ANHYDRIDE
4	9.241	151091579	44.70	26.44	PROPANOIC ACID, 2-METHYL-, METHYL ESTER
5	9.533	36678949	10.85	9.82	2-Propanol, 1,1'-oxybis-
6	13.704	19317468	5.71	2.39	Ethylene glycol di-n-butylate
7	15.596	8732838	2.58	2.58	5-PENTYL PENTAN-5-OLIDE
8	15.648	6056416	1.79	2.25	PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL-
9	17.507	7431957	2.20	2.62	DECANOIC ACID, SILVER(1+) SALT
10	17.567	5843252	1.73	3.60	Decanoic anhydride
		338022930	100.00		

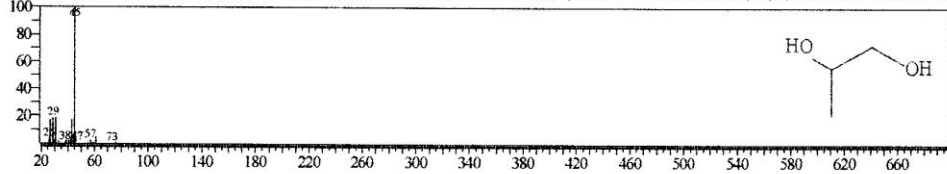
Library

<< Target >>

Line#:1 R.Time:5.058(Scan#:8) MassPeaks:211  
RawMode:Averaged 5.050-5.067(7-9) BasePeak:45.00(1226225)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

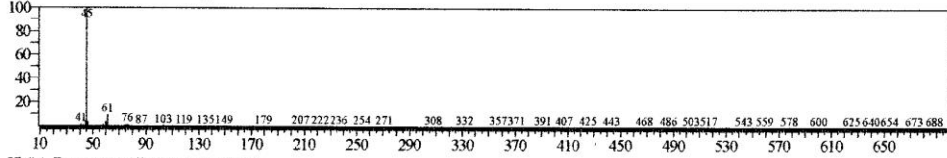


Hit#:1 Entry:2098 Library:WILEY8.LIB  
SI:96 Formula:C3H8O2 CAS:57-55-6 MolWeight:76 RetIndex:0  
CompName:1,2-PROPANEDIOL \$\$ PROPANE-1,2-DIOL \$\$ (-)-1,2-PROPANEDIOL \$\$ (-)-PROPYLENE GLYCOL \$\$ (RS)-1,2-PROPANEDIOL \$\$ ALP

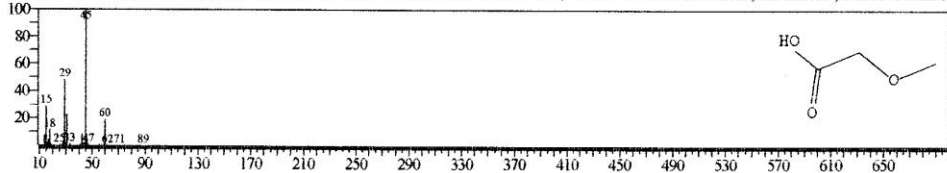


<< Target >>

Line#:2 R.Time:5.158(Scan#:20) MassPeaks:304  
RawMode:Averaged 5.150-5.167(19-21) BasePeak:45.00(159292)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

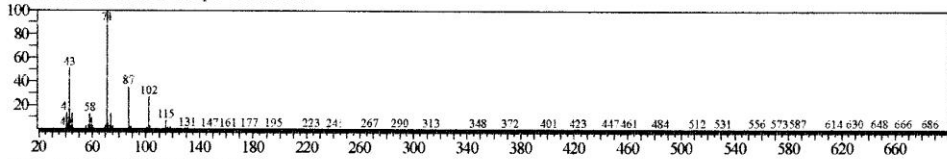


Hit#:1 Entry:4654 Library:WILEY8.LIB  
SI:91 Formula:C3H6O3 CAS:625-45-6 MolWeight:90 RetIndex:0  
CompName:ACETIC ACID, METHOXY- \$\$ 2-METHOXYACETIC ACID \$\$ ACETIC ACID, METHOXY-, SODIUM SALT \$\$

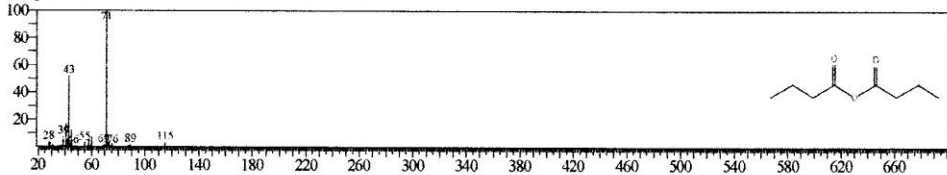


<< Target >>

Line#:3 R.Time:8.567(Scan#:429) MassPeaks:344  
RawMode:Averaged 8.558-8.575(428-430) BasePeak:71.05(761049)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



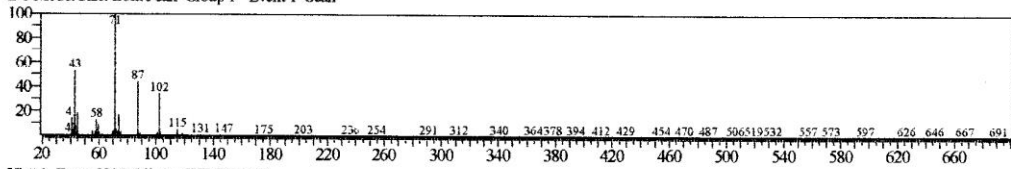
Hit#:1 Entry:51020 Library:WILEY8.LIB  
SE:85 Formula:C8H14O3 CAS:0400-0 MolWeight:158 RetIndex:0  
CompName:BUTANOIC ANHYDRIDE \$\$ BUTYRIC ANHYDRIDE





<<Target>>

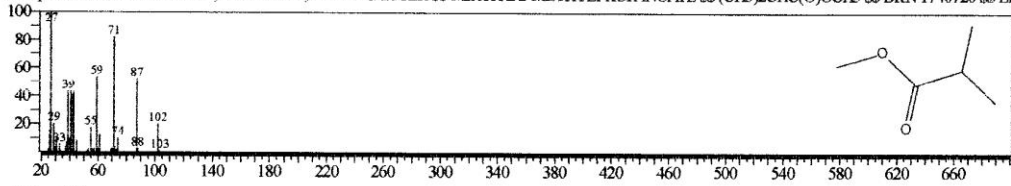
Line#:4 R.Time:9.242(Scan#:510) MassPeaks:369  
RawMode:Averaged 9.233-9.250(509-511) BasePeak:71.05(879502)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:8209 Library:WILLY8.LIB

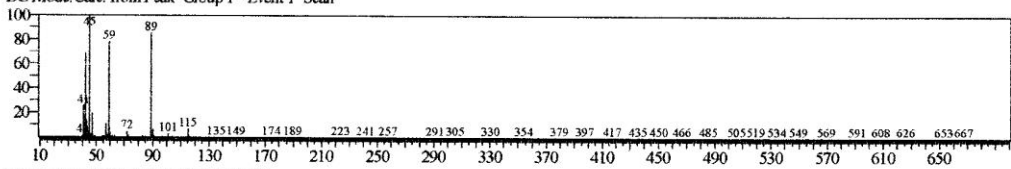
SI:83 Formula:C5H10O2 CAS:547-63-7 MolWeight:102 RetIndex:0

CompName:PROPANOIC ACID, 2-METHYL-, METHYL ESTER SS METHYL 2-METHYLPROPANOATE SS (CH3)2CHC(O)OCH3 SS BRN 1740720 SS EI



<<Target>>

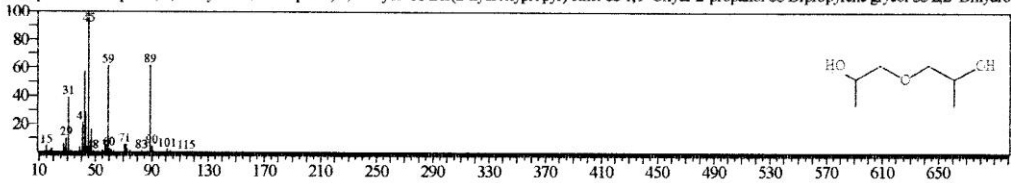
Line#:5 R.Time:9.533(Scan#:545) MassPeaks:326  
RawMode:Averaged 9.525-9.542(544-546) BasePeak:45.00(71340)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:8666 Library:NIST147.LIB

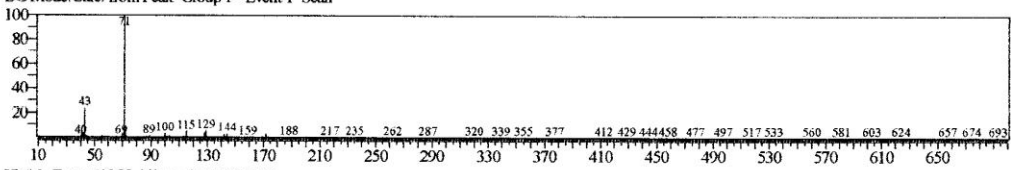
SI:93 Formula:C6H14O3 CAS:110-98-5 MolWeight:134 RetIndex:0

CompName:2-Propanol, 1,1'-oxybis- SS 2-Propanol, 1,1'-oxydi- SS Bis(2-hydroxypropyl) ether SS 1,1'-Oxydi-2-propanol SS Di(propylene glycol) SS 2,2'-Dihydro



<<Target>>

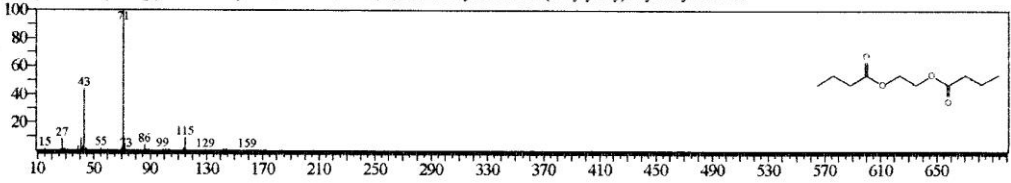
Line#:6 R.Time:13.700(Scan#:1045) MassPeaks:299  
RawMode:Averaged 13.692-13.708(1044-1046) BasePeak:71.05(4216796)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:40855 Library:NIST147.LIB

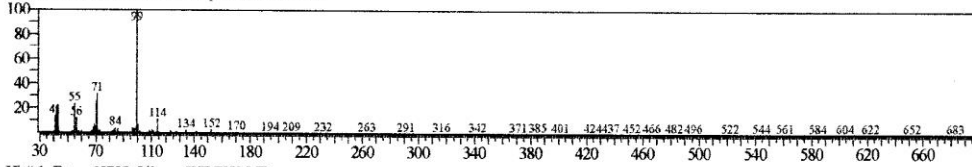
SI:90 Formula:C10H18O4 CAS:105-72-6 MolWeight:202 RetIndex:0

CompName:Ethylene glycol di-n-butylate SS Butanoic acid, 1,2-ethanediyl ester SS 2-(Butyryloxy)ethyl butyrate # SS

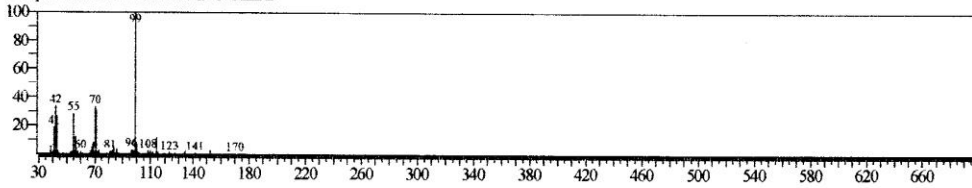


<<Target>>

Line#:7 R.Time:15.592(Scan#:1272) MassPeaks:326  
RawMode:Averaged 15.583-15.600(1271-1273) BasePeak:99.05(703617)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

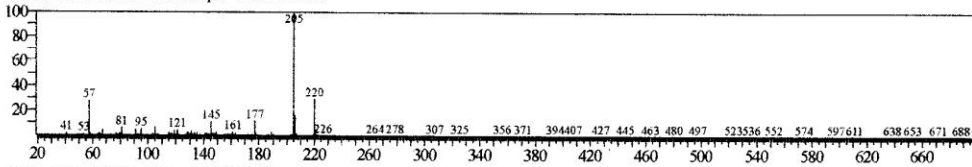


Hit#:1 Entry:65739 Library:WILFY8.LIB  
SI:96 Formula:C10H18O2 CAS:0-00-0 MolWeight:170 RetIndex:0  
CompName:5-PENTYLPENTAN-5-OLIDE

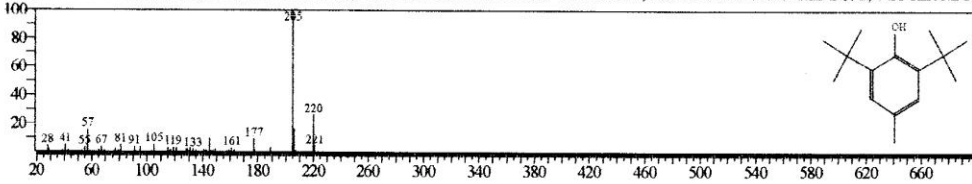


<<Target>>

Line#:8 R.Time:15.650(Scan#:1279) MassPeaks:388  
RawMode:Averaged 15.642-15.658(1278-1280) BasePeak:205.05(487548)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

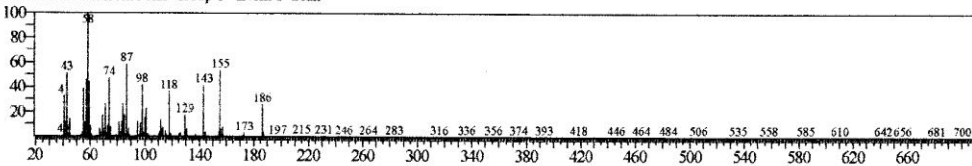


Hit#:1 Entry:133082 Library:WILFY8.LIB  
SI:95 Formula:C15H24O CAS:128-37-0 MolWeight:220 RetIndex:0  
CompName:PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL- SS 1-HYDROXY-4-METHYL-2,6-DI-TERT-BUTYLBENZENE SS 2, 6-DI-TERC.BUT

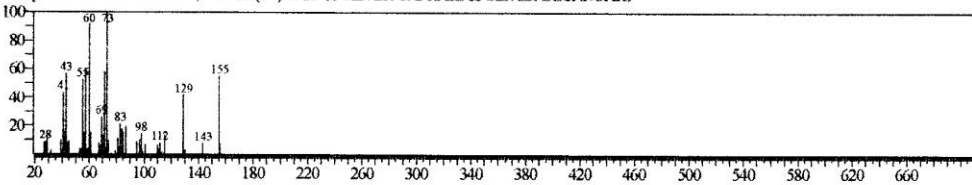


<<Target>>

Line#:9 R.Time:17.508(Scan#:1502) MassPeaks:395  
RawMode:Averaged 17.500-17.517(1501-1503) BasePeak:58.05(184348)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:212621 Library:WILEY8.LIB  
SI:74 Formula:C10H20AgO2 CAS:13126-67-5 MolWeight:279 RetIndex:0  
CompName:DECANOIC ACID, SILVER(1+) SALT SS SILVER CAPRATE SS SILVER DECAOATE

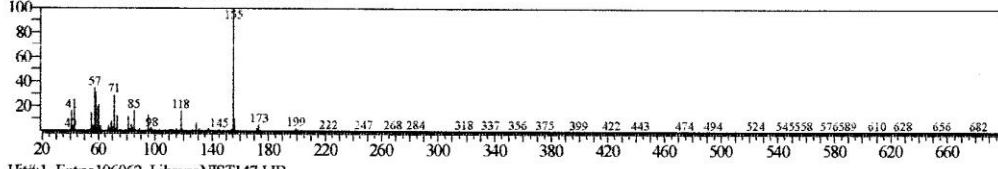


<< Target >>

Line#: 10 R.Time: 17.567(Scan#: 1509) MassPeaks: 396

RawMode: Averaged 17.558-17.575(1508-1510) BasePeak: 155.10(112851)

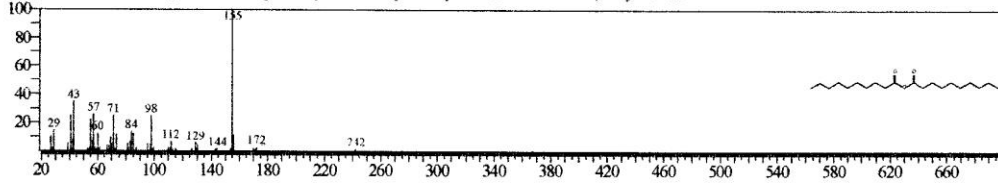
BG Mode: Calc. from Peak Group 1 - Event 1 Scan



Hrt#: 1 Entry: 106062 Library: NIST147.LIB

SI: 83 Formula: C<sub>20</sub>H<sub>38</sub>O<sub>3</sub> CAS: 2082-76-0 MolWeight: 326 RefIndex: 0

CompName: Decanoic anhydride SS n-Capric anhydride SS Capric anhydride SS Decanoic acid, anhydride SS



Tabel komponen volatil aroma DIVA *Food Essence wijzman butter* berdasarkan golongan

No	Nama Komponen	RTime	Luas Area (%)
<b>Ester</b>			
1	PROPANOIC ACID, 2-METHYL-, METHYL ESTER	9.241	44.70
2	BUTANOIC ANHYDRIDE	8.568	17.06
3	Ethylene glycol di-n-butyrate	13.704	5.71
4	Decanoic anhydride	17.567	1.73
<b>Asam Karboksilat</b>			
1	ACETIC ACID, METHOXY-	5.158	6.56
2	5-PENTYLPENTAN-5-OLIDE	15.596	2.58
<b>Alkohol</b>			
1	1,2-PROPANEDIOL	5.058	6.82
<b>Benzena/Aromatik</b>			
1	PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL-	15.648	1.79
<b>Eter</b>			
1	2-Propanol, 1,1'-oxybis-	9.533	10.85
<b>Unidentify</b>			
1	DECANOIC ACID, SILVER(1+) SALT	17.507	2.20

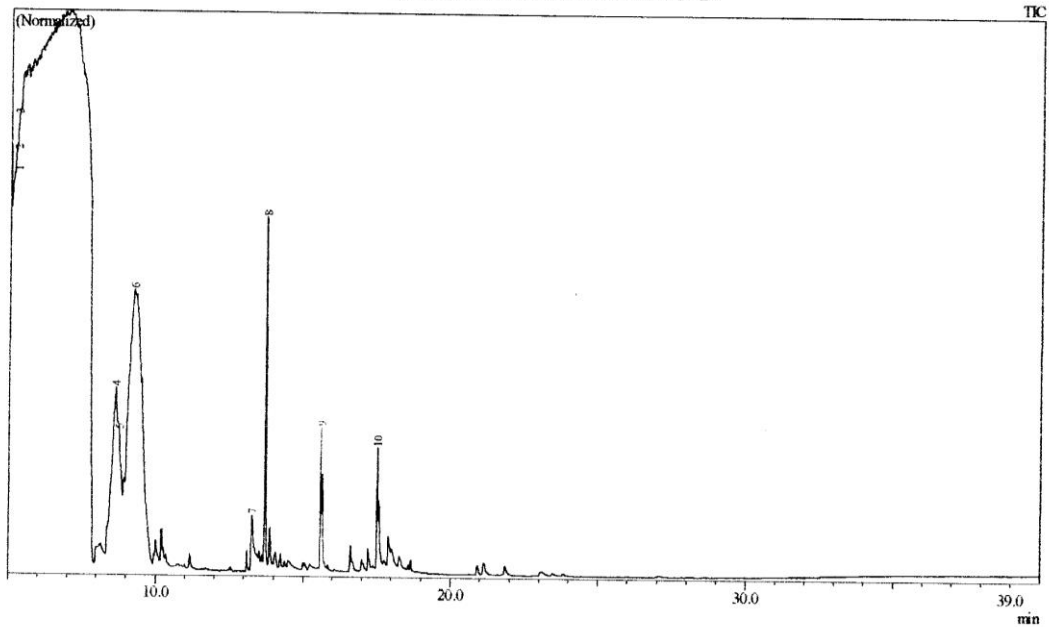
Lampiran 13. Hasil analisa senyawa volatil DIVA *Food Essence* aroma keju-keju

**DATA REPORT GCMS-QP2010 ULTRA SHIMADZU**

Analyzed by : Admin  
 Analyzed : 15/10/2020 12:28:02 PM  
 Sample Type : Unknown  
 Level # : 1  
 Sample Name : Keju  
 Sample ID :  
 IS Amount : [1]=1  
 Sample Amount : 1

Sample Information

Chromatogram Keju C:\GCMSsolution\Data\Project1\Keju.qgd

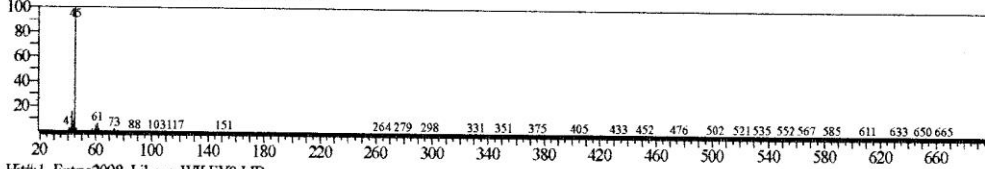


Peak#	R.Time	Area	Area%	AM Name
1	5.117	32071338	8.42	10.16 1,2-PROPANEDIOL
2	5.183	7808482	2.05	3.59 (S)-(+)-1,2-Propanediol
3	5.267	7300429	1.92	6.24 PROPANOIC ACID, 2-HYDROXY-, METHYL ESTER
4	8.625	54138389	14.21	13.16 PROPANOIC ACID, 2-METHYL-, METHYL ESTER
5	8.742	23066093	6.05	7.50 BUTANOIC ACID, ANHYDRIDE
6	9.231	209842906	55.08	31.87 BUTANOIC ANHYDRIDE
7	13.256	5593331	1.47	4.53 Ethylene glycol di-n-butyrate
8	13.704	19690433	5.17	2.33 Ethylene glycol di-n-butyrate
9	15.593	14021585	3.68	4.08 5-PENTYLPENTAN-5-OLIDE
10	17.505	7456299	1.96	2.56 DECANOIC ACID, SILVER(1+) SALT
		380989285	100.00	

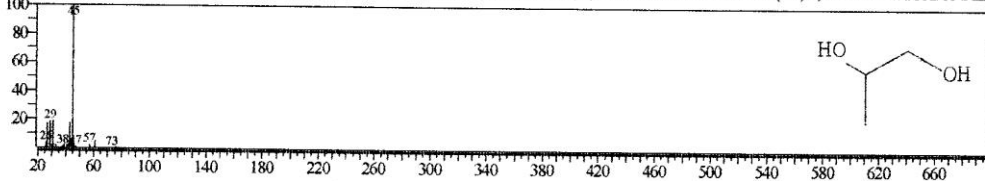
Library

<<Target>>

Line#:1 R.Time:5.117(Scan#:15) MassPeaks:233  
RawMode:Averaged 5.108-5.125(14-16) BasePeak:45.00(854775)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

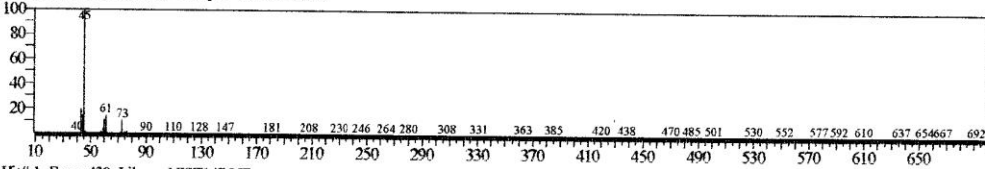


Hit#:1 Entry:2098 Library:WILEY8.LIB  
SI:96 Formula:C3H8O2 CAS:57-55-6 MolWeight:76 RetIndex:0  
CompName:1,2-PROPANEDIOL SS PROPANE-1,2-DIOL SS (+-)-1,2-PROPANEDIOL SS (+-)-PROPYLENE GLYCOL SS (RS)-1,2-PROPANEDIOL SS ALP

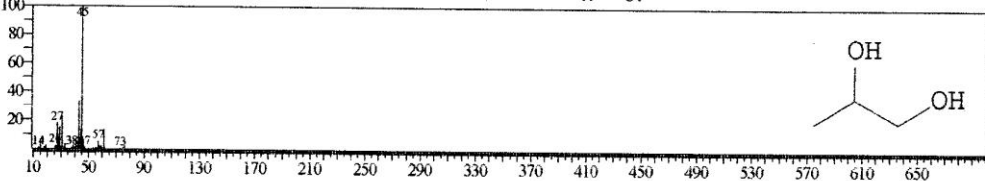


<<Target>>

Line#:2 R.Time:5.183(Scan#:23) MassPeaks:292  
RawMode:Averaged 5.175-5.192(22-24) BasePeak:45.00(62518)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

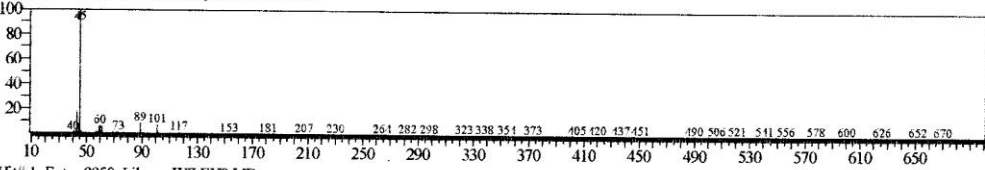


Hit#:1 Entry:438 Library:NIST147.LIB  
SI:92 Formula:C3H8O2 CAS:4254-15-3 MolWeight:76 RetIndex:0  
CompName:(S)-(-)-1,2-Propanediol SS S-(-)-Propylene glycol SS (S)-1,2-Propanediol SS Propylene glycol # SS

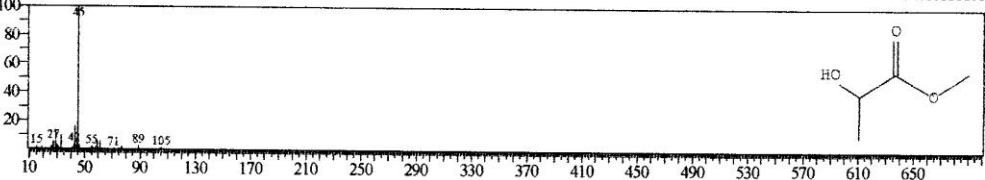


<<Target>>

Line#:3 R.Time:5.267(Scan#:33) MassPeaks:392  
RawMode:Averaged 5.258-5.275(32-34) BasePeak:45.00(161248)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

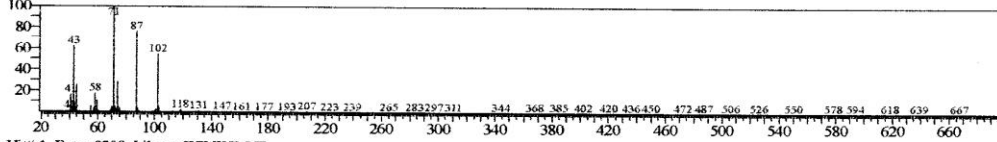


Hit#:1 Entry:8950 Library:WILEY8.LIB  
SI:91 Formula:C4H8O3 CAS:2155-30-8 MolWeight:104 RetIndex:0  
CompName:PROPANOIC ACID, 2-HYDROXY-, METHYL ESTER SS 2-HYDROXYPROPANOIC ACID METHYL ESTER SS METHYL 2-HYDROXYPRC

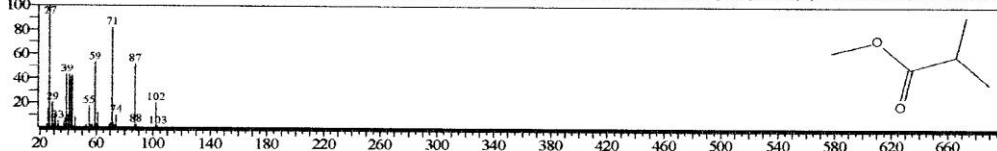


<<Target>>

Line#:4 R.Time:8.625(Scan#:436) MassPeaks:340  
RawMode:Averaged 8.617-8.633(435-437) BasePeak:71.05(339383)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

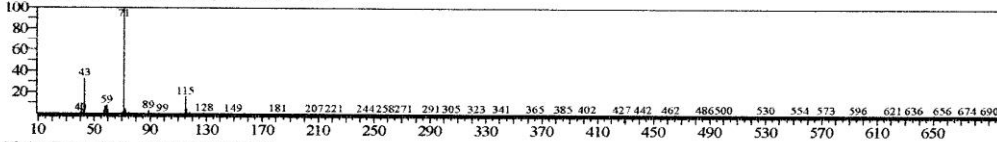


Hit#:1 Entry:8209 Library:WILEY8.LIB  
SI:83 Formula:C5H10O2 CAS:547-63-7 MolWeight:102 RetIndex:0  
CompName:PROPANOIC ACID, 2-METHYL-, METHYL ESTER SS METHYL 2-METHYLPROPANOATE SS (CH3)2CHC(O)OCH3 SS BRN 1740720 SS EI

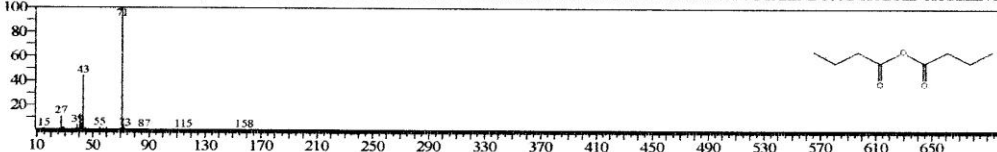


<<Target>>

Line#:5 R.Time:8.742(Scan#:450) MassPeaks:311  
RawMode:Averaged 8.733-8.750(449-451) BasePeak:71.05(118945)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

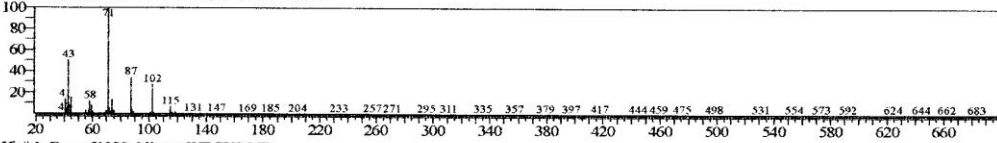


Hit#:1 Entry:50811 Library:WILEY8.LIB  
SI:87 Formula:C8H14O3 CAS:106-31-0 MolWeight:158 RetIndex:0  
CompName:BUTANOIC ACID, ANHYDRIDE SS BUTYRIC ACID BUTYRYL ESTER SS ANHYDRID KYSELINY MASELNE SS ANHYDRID KYSELINY

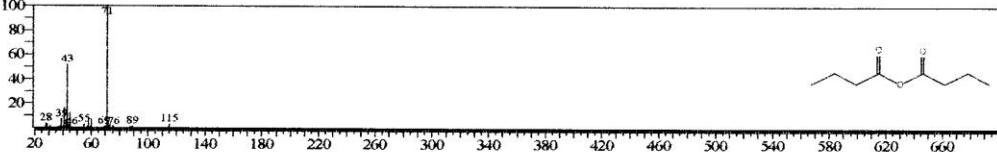


<<Target>>

Line#:6 R.Time:9.233(Scan#:509) MassPeaks:313  
RawMode:Averaged 9.225-9.242(508-510) BasePeak:71.05(1689327)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

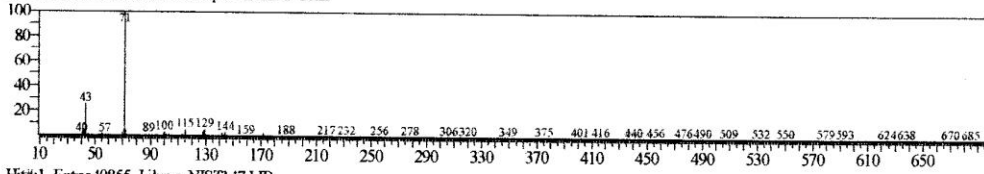


Hit#:1 Entry:51020 Library:WILEY8.LIB  
SI:84 Formula:C8H14O3 CAS:0-00-0 MolWeight:158 RetIndex:0  
CompName:BUTANOIC ANHYDRIDE SS BUTYRIC ANHYDRIDE

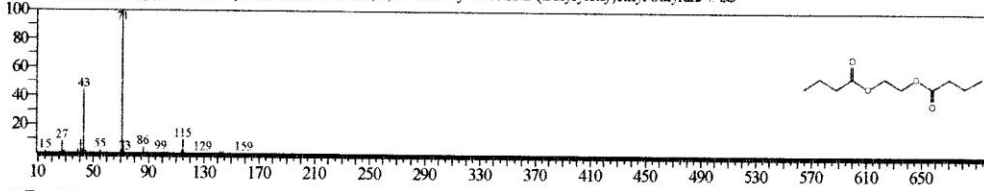


<<Target >>

Line#:7 R.Time:13.258(Scan#:992) MassPeaks:360  
RawMode:Averaged 13.250-13.267(991-993) BasePeak:71.05(663700)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

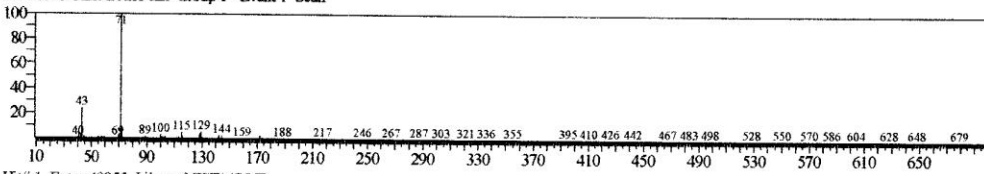


Hit#:1 Entry:40855 Library:NIST147.LIB  
SI:90 Formula:C10H18O4 CAS:105-72-6 MolWeight:202 RetIndex:0  
CompName:Ethylene glycol di-n-butyrate SS Butanoic acid, 1,2-ethanediyl ester SS 2-(Butyryloxy)ethyl butyrate # SS

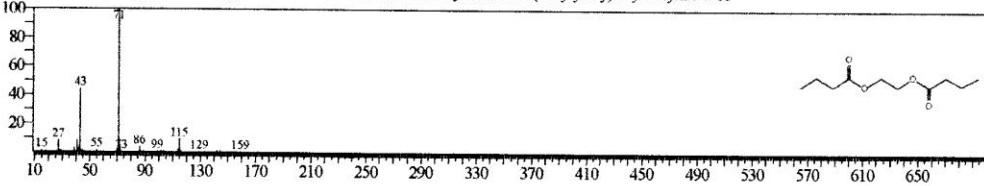


<<Target >>

Line#:8 R.Time:13.700(Scan#:1045) MassPeaks:331  
RawMode:Averaged 13.692-13.708(1044-1046) BasePeak:71.05(4430250)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

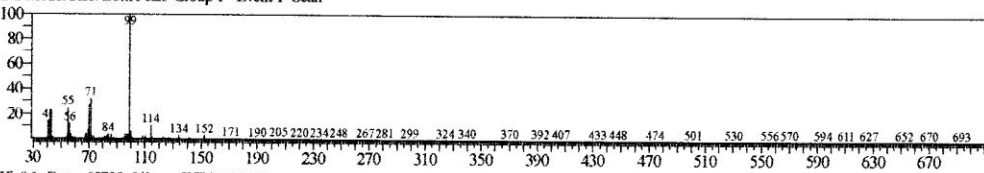


Hit#:1 Entry:40855 Library:NIST147.LIB  
SI:90 Formula:C10H18O4 CAS:105-72-6 MolWeight:202 RetIndex:0  
CompName:Ethylene glycol di-n-butyrate SS Butanoic acid, 1,2-ethanediyl ester SS 2-(Butyryloxy)ethyl butyrate # SS

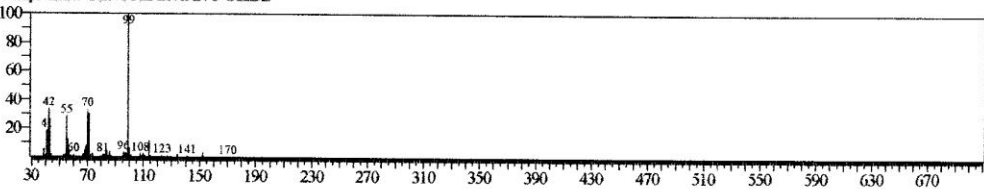


<<Target >>

Line#:9 R.Time:15.592(Scan#:1272) MassPeaks:383  
RawMode:Averaged 15.583-15.600(1271-1273) BasePeak:99.05(898153)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



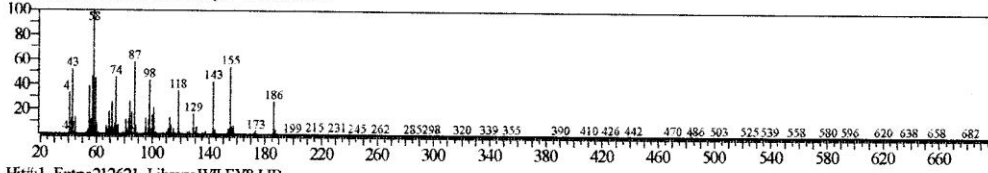
Hit#:1 Entry:65739 Library:WILEY8.LIB  
SI:97 Formula:C10H18O2 CAS:0-00-0 MolWeight:170 RetIndex:0  
CompName:5-PENTYL-PENTAN-5-OLIDE



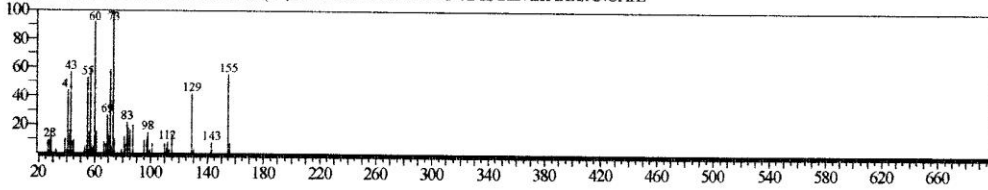


<<Target >>

Line#:10 R.Time:17.508(Scan#:1502) MassPeaks:366  
RawMode:Averaged 17.500-17.517(1501-1503) BasePeak:58.05(197046)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:212621 Library:WILEY8.LIB  
SE74 Formula:C10H20AgO2 CAS:13126-67-5 MolWeight:279 RetIndex:0  
CompName:DECANOIC ACID, SILVER(1+) SALT \$\$ SILVER CAPRATE \$\$ SILVER DECANOATE



Tabel komponen volatil aroma DIVA *Food Essence* keju-keju berdasarkan golongan

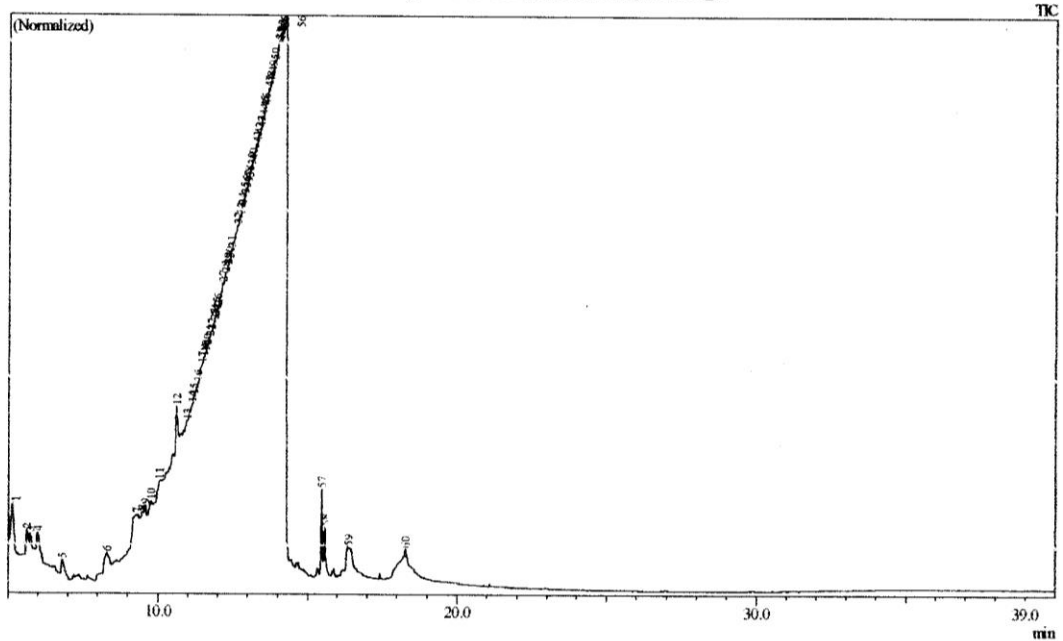
No	Nama Komponen	RTime	Luas Area (%)
<b>Ester</b>			
1	PROPANOIC ACID, 2-HYDROXY-, METHYL ESTER	5.267	1.92
2	PROPANOIC ACID, 2-METHYL-, METHYL ESTER	8.625	14.21
3	BUTANOIC ANHYDRIDE	9.231	55.08
4	BUTANOIC ACID, ANHYDRIDE	8.742	6.05
5	Ethylene glycol di-n-butyrate	13.704	5.17
6	Ethylene glycol di-n-butyrate	13.256	1.47
<b>Asam Karboksilat</b>			
1	5-PENTYLPENTAN-5-OLIDE	15.593	4.08
<b>Alkohol</b>			
1	1,2-PROPANEDIOL	5.117	8.42
2	(S)-(+)-1,2-Propanediol	5.183	2.05
<b>Unidentify</b>			
1	DECANOIC ACID, SILVER(1+) SALT	17.505	1.96

Lampiran 14. Hasil analisa senyawa volatil *edible film* beraroma (EFA)

**DATA REPORT GCMS-QP2010 ULTRA SHIMADZU**

Sample Information  
 Analyzed by : Admin  
 Analyzed : 22/10/2020 5:06:07 PM  
 Sample Type : Unknown  
 Level # : 1  
 Sample Name : AEF  
 Sample ID :  
 IS Amount : [1]-1  
 Sample Amount : 1

Chromatogram AEF C:\GCMSsolution\Data\Project\AEF.qsd



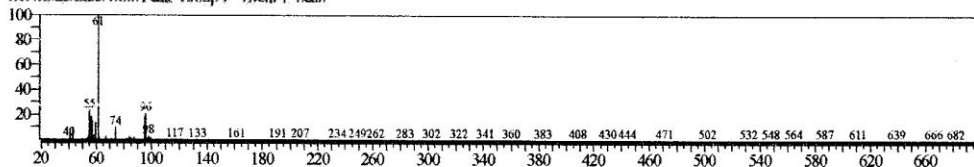
Peak#	R.Time	Area	Area%	A/H Name
1	5.131	7271128	0.41	5.89 ETHENE, 1,1-DICHLORO-
2	5.626	4242951	0.24	5.36 3-Furanmethanol
3	5.737	4055599	0.23	5.44 1,2-ETHANEDIOL, DIACETATE
4	5.984	8217394	0.46	9.38 4-CYCLOPENTENE-1,3-DIONE #
5	6.803	3825513	0.21	7.74 1,2-CYCLOOCTANEDIONE
6	8.299	5584985	0.31	10.34 2-Hydroxy-gamma-butyrolactone
7	9.281	10019552	0.56	14.32 Glycerin
8	9.467	3627965	0.20	7.86 N,N-Dimethylhexanamide
9	9.566	2275150	0.13	4.48 UNDECANE
10	9.758	2040408	0.11	7.02 OXIRANE, (ETHOXYMETHYL)-
11	10.04	3850935	0.21	10.00 1,2,3-Propanetriol, monoacetate
12	10.608	5392156	0.30	4.16 4H-Pyran-4-one, 2,3-dihydro-3,5-dihydroxy-6-methyl-
13	10.950	1966187	0.11	4.46 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
14	11.125	8446473	0.47	7.11 1,2,3-PROPANETRIOL
15	11.183	5732944	0.32	3.86 1,2,3-PROPANETRIOL
16	11.308	14078144	0.79	6.84 1,2,3-PROPANETRIOL
17	11.442	22056715	1.23	7.88 1,2,3,4-BUTANETETROL
18	11.500	9133017	0.51	2.98 1,2,3-PROPANETRIOL
19	11.550	14765158	0.82	4.51 OXIRANEMETHANOL
20	11.617	14446902	0.81	4.05 BUTANE, 2,2'-THIOBIS-
21	11.692	13697206	0.76	3.49 1,2,3-PROPANETRIOL
22	11.750	18899519	1.05	4.49 1,2,3-PROPANETRIOL
23	11.842	15870344	0.89	3.43 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
24	11.883	11852960	0.66	2.48 BUTANE, 2,2'-THIOBIS-
25	11.925	15050732	0.84	2.98 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
26	11.971	12968437	0.72	2.48 1,2,3-PROPANETRIOL

Peak#	R.Time	Area	Area%	A/H Name
27	12.133	57699918	3.22	9.38 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
28	12.225	41855486	2.34	6.41 1,2,3-PROPANETRIOL
29	12.292	20572187	1.15	2.99 2,4,6-TRITHIAHEPTANE-2-OXIDE
30	12.342	24820658	1.39	3.49 1,2,3-PROPANETRIOL
31	12.417	37363141	2.08	4.94 Glycerin
32	12.608	98101170	5.47	11.54 1,2,3-PROPANETRIOL
33	12.700	30875839	1.72	3.46 1,2,3-PROPANETRIOL
34	12.767	50528207	2.82	5.43 Glycerin
35	12.850	43464027	2.43	4.46 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
36	12.900	24873224	1.39	2.49 2,4,6-TRITHIAHEPTANE-2-OXIDE
37	12.950	30454303	1.70	2.98 1,2,3-PROPANETRIOL
38	12.992	20784540	1.16	2.00 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
39	13.058	43043174	2.40	3.94 1,2,3-PROPANETRIOL
40	13.100	27527185	1.54	2.48 1,2,3-PROPANETRIOL
41	13.240	97794008	5.46	8.29 1,2,3-PROPANETRIOL
42	13.292	60381310	3.37	4.98 ETHANOL, 2-AMINO-
43	13.367	43378514	2.42	3.49 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
44	13.433	44715849	2.50	3.47 Glycerin
45	13.492	39239296	2.19	2.97 1-PROPYLENE GLYCOL
46	13.525	33199264	1.85	2.49 2,5-DIHYDROXY-1,4-DIOXANE
47	13.640	89174633	4.98	6.37 ETHANOL, 2-AMINO-
48	13.700	49388306	2.76	3.47 ETHANOL, 2-AMINO-
49	13.750	50742942	2.83	3.48 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
50	13.833	82031790	4.58	5.44 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
51	13.967	124358356	6.94	7.84 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
52	14.017	31867042	1.78	2.00 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
53	14.053	40261529	2.25	2.48 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
54	14.100	48742236	2.72	2.99 Glycerin
55	14.142	32858985	1.83	2.00 1,2,4-TRIAZINE-3,5-DICARBOXYLIC ACID, 6-METHYL-, DIETHYL ESTER
56	14.215	105952269	5.91	6.26 1,2,3-PROPANETRIOL
57	15.454	8992913	0.50	3.27 1,2-Crown-4
58	15.577	6109064	0.34	3.89 2H-Pyran-2-one, tetrahydro-6-pentyl-
59	16.352	10248430	0.57	12.84 Ethanol, 2-(2-butoxyethoxy)-, acetate
60	18.266	1246669	0.07	4.01 5-HEPTYLPENTAN-5-OLIDE
		1792014938	100.00	

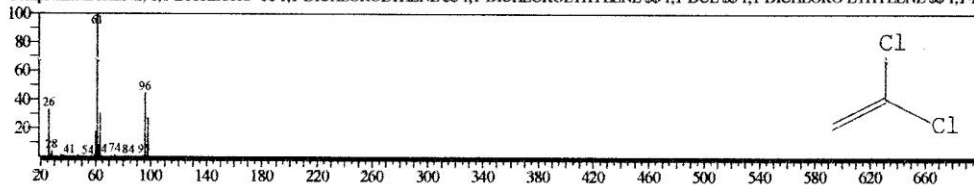
Library

<< Target >>

Line#:1 R.Time:5.133(Scan#:17) MassPeaks:358  
RawMode:Averaged 5.125-5.142(16-18) BasePeak:61.05(462724)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

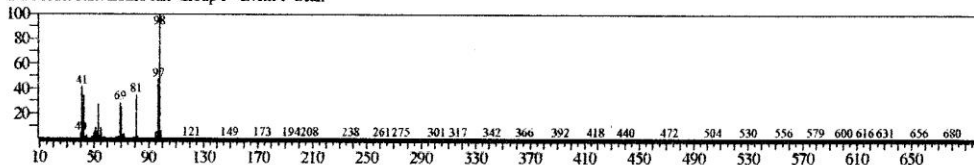


Hit#:1 Entry:5499 Library:WILEY8.LIB  
SI:76 Formula:C2H2Cl2 CAS:75-35-4 MolWeight:96 RetIndex:0  
CompName:ETHENE, 1,1-DICHLORO- SS 1,1-DICHLOROETHENE SS 1,1-DCE SS 1,1-DICHLORO-ETHYLENE SS 1,1-D

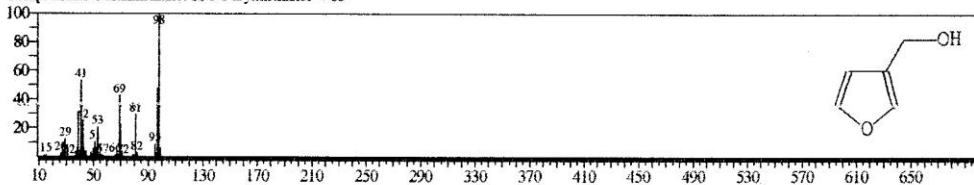


<< Target >>

Line#:2 R.Time:5.625(Scan#:76) MassPeaks:336  
RawMode:Averaged 5.617-5.633(75-77) BasePeak:98.00(144301)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

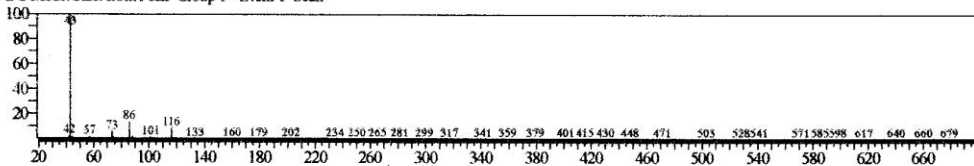


Hit#:1 Entry:1555 Library:NIST147.LIB  
SI:95 Formula:C5H6O2 CAS:4412-91-3 MolWeight:98 RetIndex:0  
CompName:3-Furanmethanol SS 3-Furylmethanol # SS

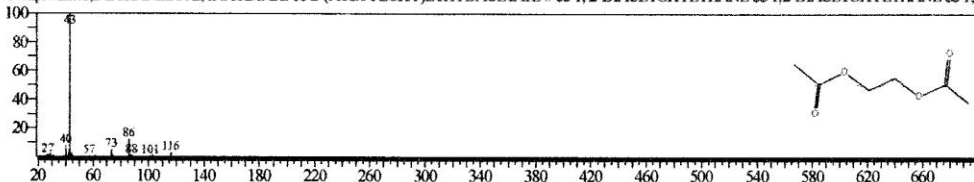


<< Target >>

Line#:3 R.Time:5.733(Scan#:89) MassPeaks:317  
RawMode:Averaged 5.725-5.742(88-90) BasePeak:43.00(266083)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

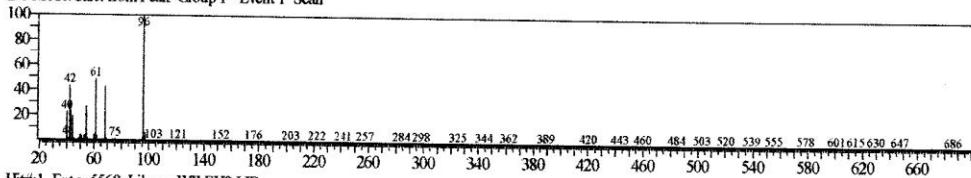


Hit#:1 Entry:36960 Library:WILEY8.LIB  
SI:96 Formula:C6H10O4 CAS:111-55-7 MolWeight:146 RetIndex:0  
CompName:1,2-ETHANEDIOL, DIACETATE SS 2-(ACETOXY)ETHYLACETATE # SS 1,2-DIACETOXYETHANE SS 1,2-DIACETOXYETHANE SS 1,2



<< Target >>

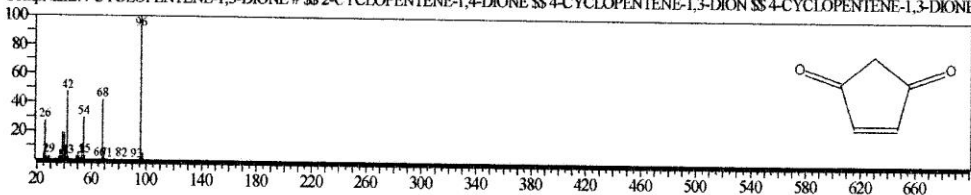
Line#:4 R.Time:5.983(Scan#:119) MassPeaks:255  
RawMode:Averaged 5.975-5.992(118-120) BasePeak:96.00(187562)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:5568 Library:WILEY8.LIB

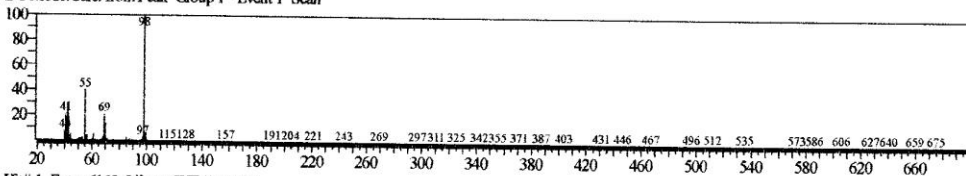
SI:89 Formula:C5H4O2 CAS:930-60-9 MolWeight:96 RetIndex:0

CompName:4-CYCLOPENTENE-1,3-DIONE # SS 2-CYCLOPENTENE-1,4-DIONE SS 4-CYCLOPENTENE-1,3-DIONE



<< Target >>

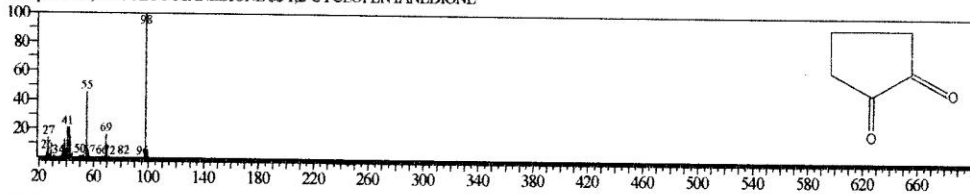
Line#:5 R.Time:6.800(Scan#:217) MassPeaks:422  
RawMode:Averaged 6.792-6.808(216-218) BasePeak:98.00(166239)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:6163 Library:WILEY8.LIB

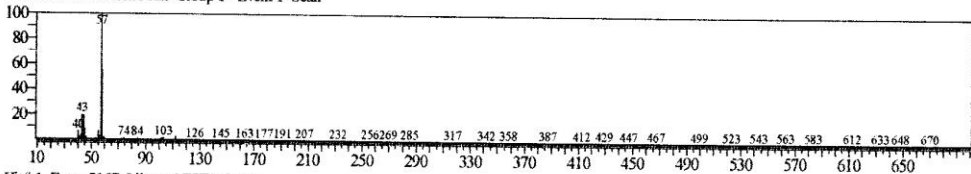
SI:95 Formula:C5H6O2 CAS:3008-40-0 MolWeight:98 RetIndex:0

CompName:1,2-CYCLOOCTANEDIONE # SS 1,2-CYCLOPENTANEDIONE



<< Target >>

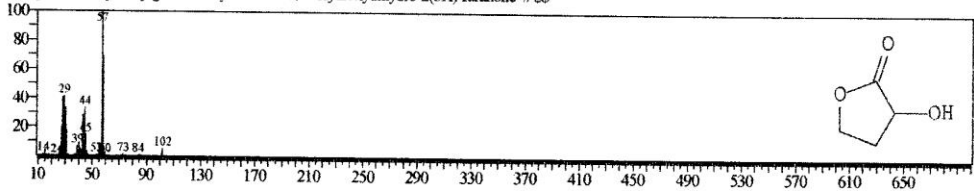
Line#:6 R.Time:8.300(Scan#:397) MassPeaks:423  
RawMode:Averaged 8.292-8.308(396-398) BasePeak:57.05(222906)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:2167 Library:NIST147.LIB

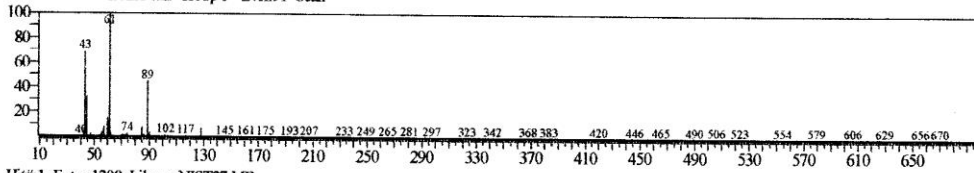
SI:93 Formula:C4H6O3 CAS:19444-84-9 MolWeight:102 RetIndex:0

CompName:2-Hydroxy-gamma-butyrolactone # SS 3-Hydroxydihydro-2(3H)-furanone # SS

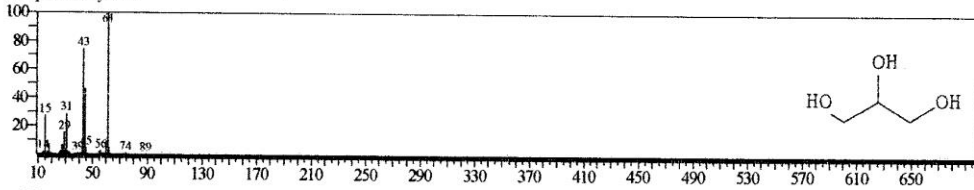


<< Target >>

Line#: 7 R.Time: 9.283(Scan#: 515) MassPeaks: 275  
RawMode: Averaged 9.275-9.292(514-516) BasePeak: 61.05(128283)  
BG Mode: Calc. from Peak Group 1 - Event 1 Scan

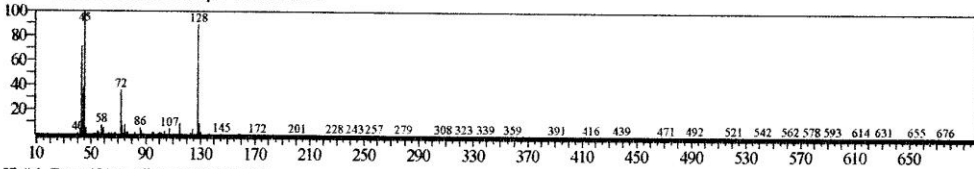


Hit#: 1 Entry: 1208 Library: NIST27.LIB  
SE: 87 Formula: C3H8O3 CAS: 56-81-5 MolWeight: 92 RetIndex: 0  
CompName: Glycerin

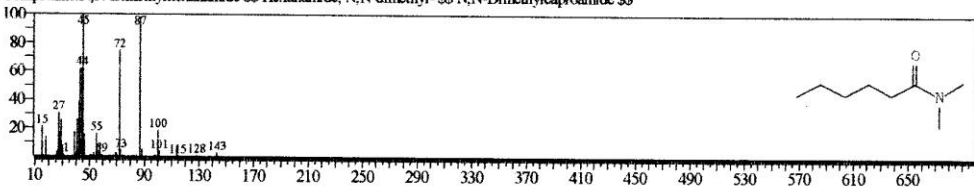


<< Target >>

Line#: 8 R.Time: 9.467(Scan#: 537) MassPeaks: 361  
RawMode: Averaged 9.458-9.475(536-538) BasePeak: 45.00(31499)  
BG Mode: Calc. from Peak Group 1 - Event 1 Scan

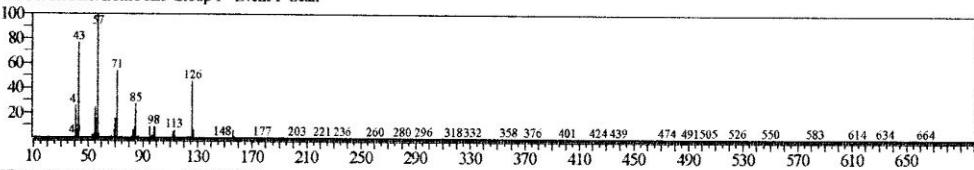


Hit#: 1 Entry: 12118 Library: NIST147.LIB  
SE: 72 Formula: C8H17NO CAS: 5830-30-8 MolWeight: 143 RetIndex: 0  
CompName: N,N-Dimethylhexanamide \$\$ Hexanamide, N,N-dimethyl- \$\$ N,N-Dimethylcaproamide \$\$

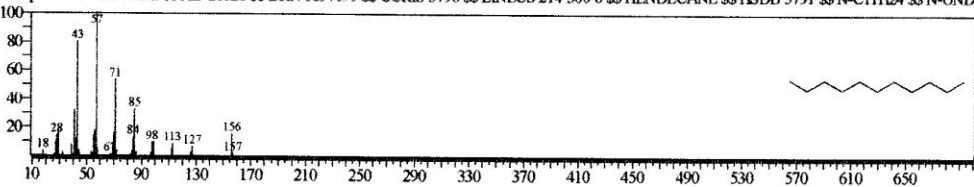


<< Target >>

Line#: 9 R.Time: 9.567(Scan#: 549) MassPeaks: 326  
RawMode: Averaged 9.558-9.575(548-550) BasePeak: 57.05(68895)  
BG Mode: Calc. from Peak Group 1 - Event 1 Scan

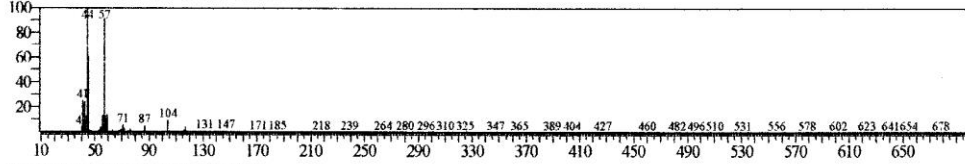


Hit#: 1 Entry: 49756 Library: WILEY8.LIB  
SE: 92 Formula: C11H24 CAS: 1120-21-4 MolWeight: 156 RetIndex: 0  
CompName: UNDECANE \$\$ A13-21126 \$\$ BRN 1697099 \$\$ CCRIS 3796 \$\$ EINECS 214-300-6 \$\$ HENDECANE \$\$ HSDB 5791 \$\$ N-C11H24 \$\$ N-UND

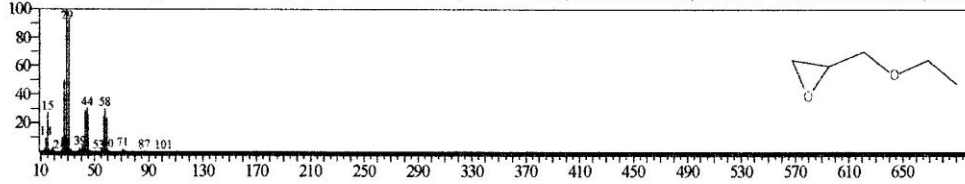


<<Target >>

Line#:10 R.Time:9.758(Scan#:572) MassPeaks:294  
RawMode:Averaged 9.750-9.767(571-573) BasePeak:44.00(80053)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

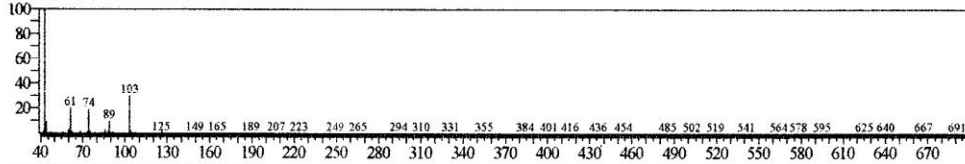


Hit#:1 Entry:8320 Library:WILEY8.LIB  
SI:81 Formula:C5H10O2 CAS:4016-11-9 MolWeight:102 RetIndex:0  
CompName:OXIRANE, (ETHOXYMETHYL)- SS 2-(ETHOXYMETHYL)OXIRANE SS 2-(ETHOXYMETHYL)OXIRANE # SS (ETHOXYMETHYL)OXIRAN

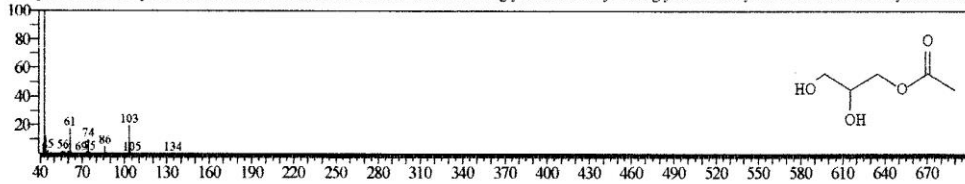


<<Target >>

Line#:11 R.Time:10.042(Scan#:606) MassPeaks:252  
RawMode:Averaged 10.033-10.050(605-607) BasePeak:43.00(192510)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

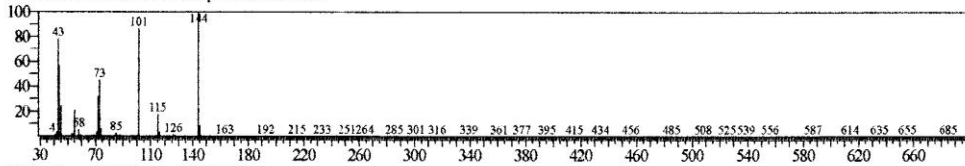


Hit#:1 Entry:8591 Library:NIST147.LIB  
SI:90 Formula:C5H10O4 CAS:26446-35-5 MolWeight:134 RetIndex:0  
CompName:1,2,3-Propanetriol, monoacetate SS Acetin, mono- SS Acetin SS Acetoglyceride SS Acetyl monoglyceride SS Glycerin monoacetate SS Glycerol acetat

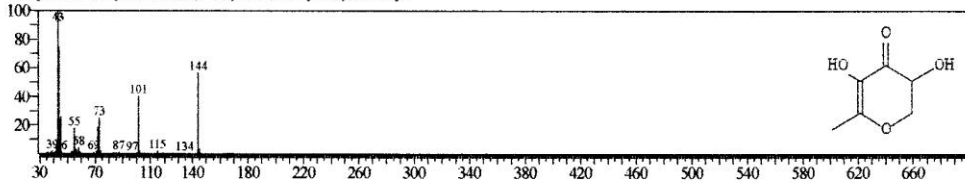


<<Target >>

Line#:12 R.Time:10.608(Scan#:674) MassPeaks:278  
RawMode:Averaged 10.600-10.617(673-675) BasePeak:144.00(265178)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



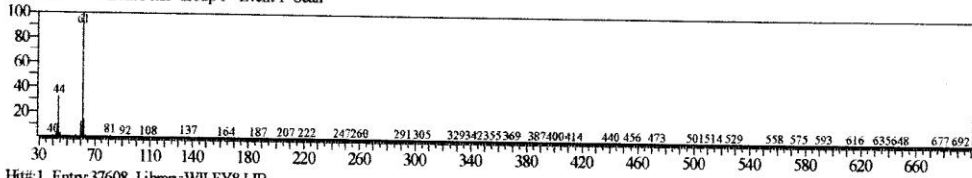
Hit#:1 Entry:7436 Library:NIST27.LIB  
SI:37 Formula:C6H8O4 CAS:28564-83-2 MolWeight:144 RetIndex:0  
CompName:4H-Pyran-4-one, 2,3-dihydro-3,5-dihydroxy-6-methyl-



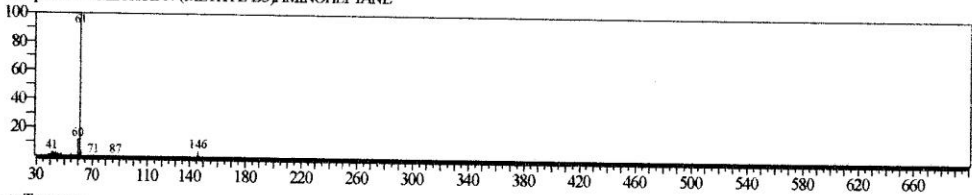


<< Target >>

Line#:13 R.Time:10.950(Scan#:715) MassPeaks:284  
RawMode:Averaged 10.942-10.958(714-716) BasePeak:61.05(37105)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

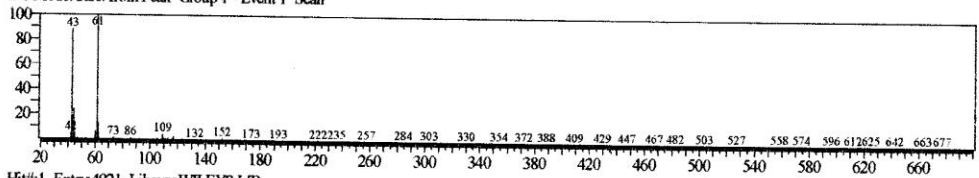


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SL87 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

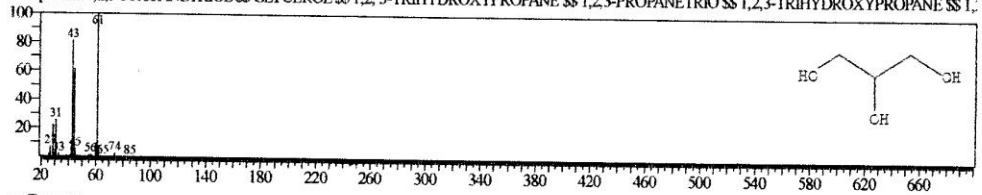


<< Target >>

Line#:14 R.Time:11.125(Scan#:736) MassPeaks:299  
RawMode:Averaged 11.117-11.133(735-737) BasePeak:61.05(21234)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

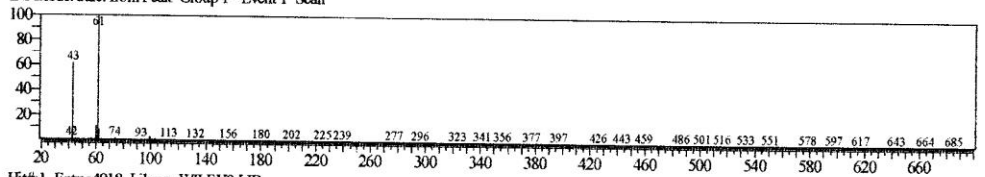


Hit#:1 Entry:4921 Library:WILEY8.LIB  
SL91 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL \$\$ GLYCEROL \$\$ 1,2,3-TRIHYDROXYPROPANE \$\$ 1,2,3-PROPANETRIO \$\$ 1,2,3-TRIHYDROXYPROPANE \$\$ 1,

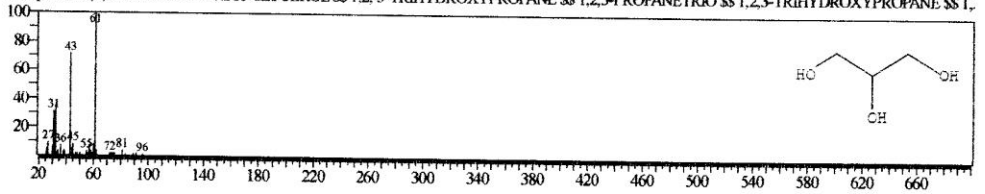


<< Target >>

Line#:15 R.Time:11.183(Scan#:743) MassPeaks:295  
RawMode:Averaged 11.175-11.192(742-744) BasePeak:61.05(41619)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

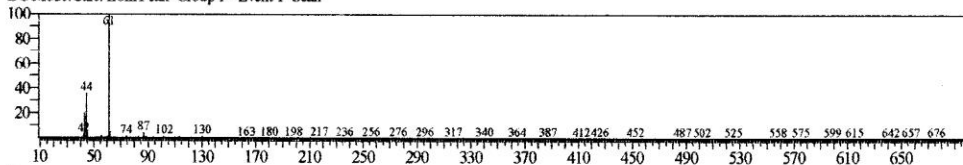


Hit#:1 Entry:4918 Library:WILEY8.LIB  
SL87 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL \$\$ GLYCEROL \$\$ 1,2,3-TRIHYDROXYPROPANE \$\$ 1,2,3-PROPANETRIO \$\$ 1,2,3-TRIHYDROXYPROPANE \$\$ 1,

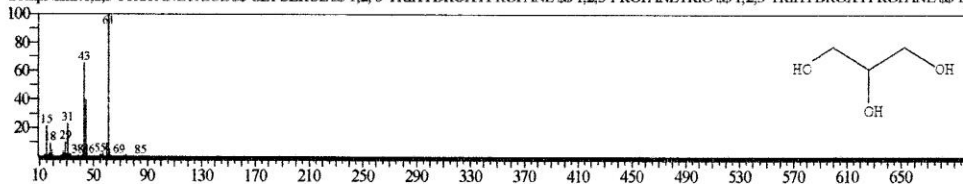


<<Target>>

Line#:16 R.Time:11.308(Scan#:758) MassPeaks:274  
RawMode:Averaged 11.300-11.317(757-759) BasePeak:61.05(35585)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

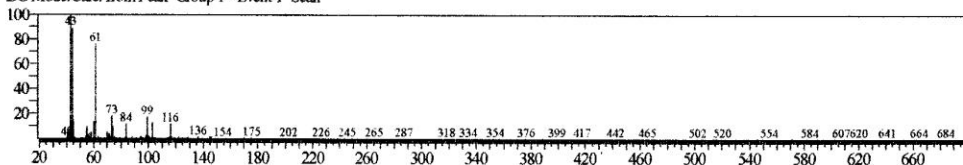


Hit#:1 Entry:4920 Library:WILEY8.LIB  
SI:88 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL \$\$ GLYCEROL \$\$ 1,2,3-TRIHIDROXYPROPANE \$\$ 1,2,3-PROPANETRIO \$\$ 1,2,3-TRIHIDROXYPROPANE \$\$ 1,

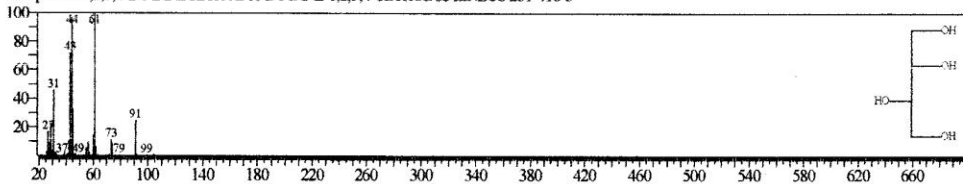


<<Target>>

Line#:17 R.Time:11.442(Scan#:774) MassPeaks:316  
RawMode:Averaged 11.433-11.450(773-775) BasePeak:43.00(25726)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

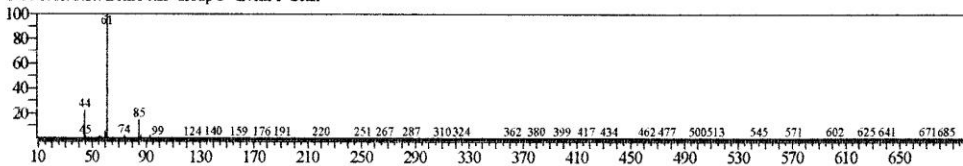


Hit#:1 Entry:17274 Library:WILEY8.LIB  
SI:81 Formula:C4H10O4 CAS:7541-59-5 MolWeight:122 RetIndex:0  
CompName:1,2,3,4-BUTANETETROL \$\$ BUTANE-1,2,3,4-TETROL \$\$ EINECS 231-418-3

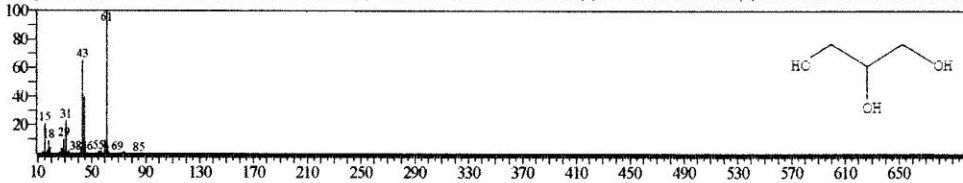


<<Target>>

Line#:18 R.Time:11.500(Scan#:781) MassPeaks:264  
RawMode:Averaged 11.492-11.508(780-782) BasePeak:61.05(40939)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

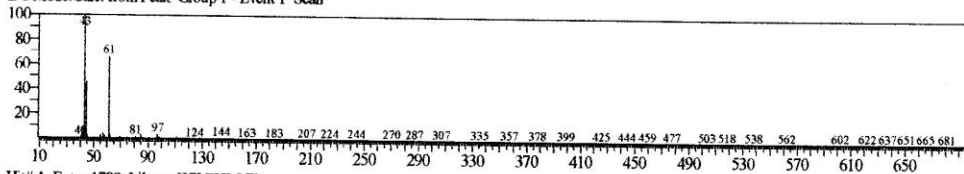


Hit#:1 Entry:4920 Library:WILEY8.LIB  
SI:90 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL \$\$ GLYCEROL \$\$ 1,2,3-TRIHIDROXYPROPANE \$\$ 1,2,3-PROPANETRIO \$\$ 1,2,3-TRIHIDROXYPROPANE \$\$ 1,

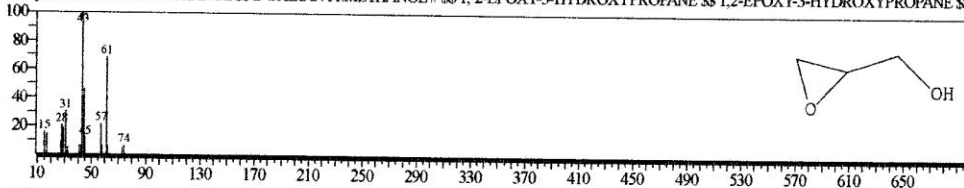


<< Target >>

Line#:19 R.Time:11.550(Scan#:787) MassPeaks:351  
RawMode:Averaged 11.542-11.558(786-788) BasePeak:43.00(33561)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

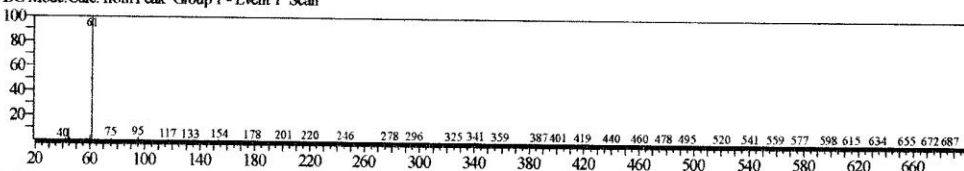


Hit#:1 Entry:1789 Library:WILEY8.LIB  
SI:90 Formula:C3H6O2 CAS:556-52-5 MolWeight:74 RetIndex:0  
CompName:OXIRANEMETHANOL,SS 2-OXIRANYLMETHANOL,SS 1, 2-EPOXY-3-HYDROXYPROPANE,SS 1,2-EPOXY-3-HYDROXYPROPANE,SS

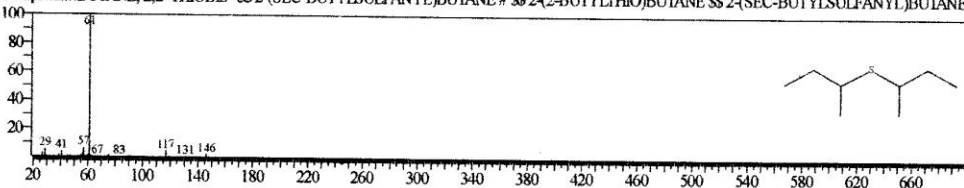


<< Target >>

Line#:20 R.Time:11.617(Scan#:795) MassPeaks:335  
RawMode:Averaged 11.608-11.625(794-796) BasePeak:61.05(81002)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

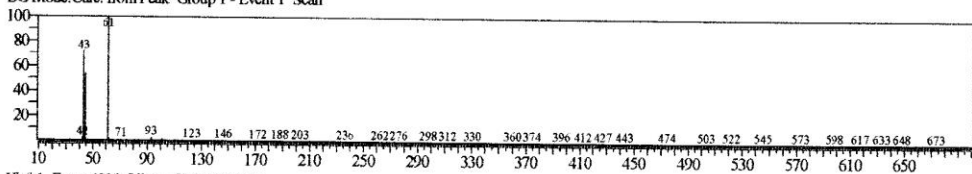


Hit#:1 Entry:37486 Library:WILEY8.LIB  
SI:88 Formula:C8H18S CAS:626-26-6 MolWeight:146 RetIndex:0  
CompName:BUTANE, 2,2-THIOBIS-,SS 2-(SEC-BUTYLSULFANYL)BUTANE,SS 2-(2-BUTYLTHIO)BUTANE,SS 2-(SEC-BUTYLSULFANYL)BUTANE,SS

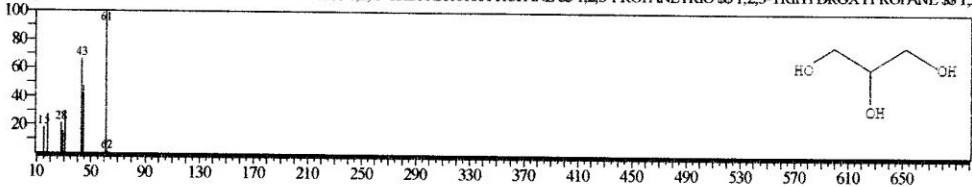


<< Target >>

Line#:21 R.Time:11.692(Scan#:804) MassPeaks:336  
RawMode:Averaged 11.683-11.700(803-805) BasePeak:61.05(30996)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

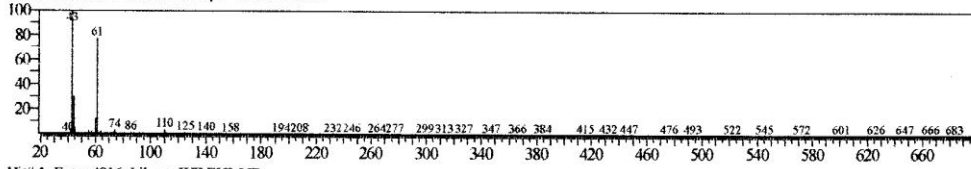


Hit#:1 Entry:4919 Library:WILEY8.LIB  
SI:95 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL,SS GLYCEROL,SS 1,2, 3-TRIHYDROXYPROPANE,SS 1,2,3-PROPANETRIO,SS 1,2,3-TRIHYDROXYPROPANE,SS 1,



<<Target >>

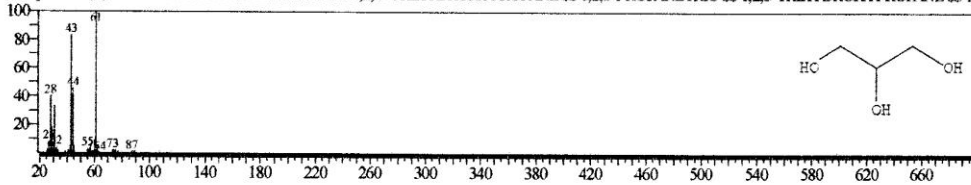
Line#:22 R.Time:11.750(Scan#:811) MassPeaks:344  
RawMode:Averaged 11.742-11.758(810-812) BasePeak:43.00(42475)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:4916 Library:WILEY8.LIB

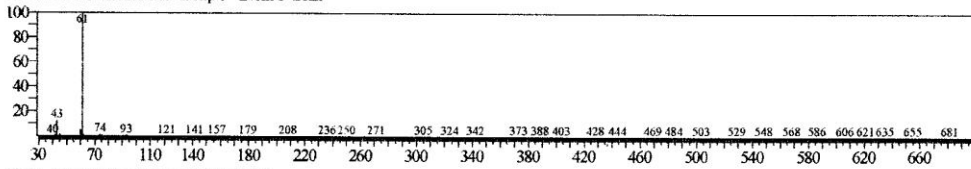
SI:89 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0

CompName:1,2,3-PROPANETRIOL \$\$ GLYCEROL \$\$ 1,2,3-TRIHIDROXYPROPANE \$\$ 1,2,3-TRIHIDROXYPROPANE \$\$ 1,



<<Target >>

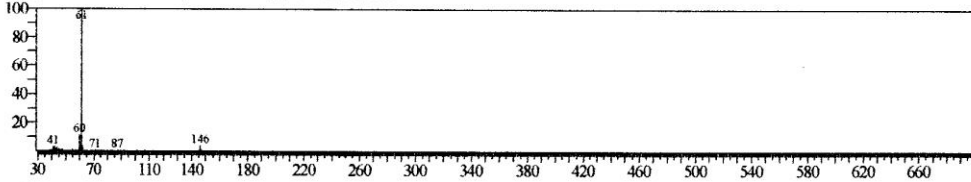
Line#:23 R.Time:11.842(Scan#:822) MassPeaks:329  
RawMode:Averaged 11.833-11.850(821-823) BasePeak:61.05(90399)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:37608 Library:WILEY8.LIB

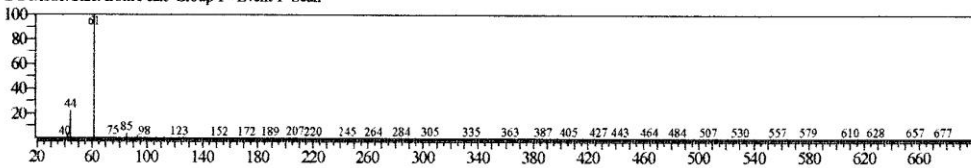
SI:89 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0

CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE



<<Target >>

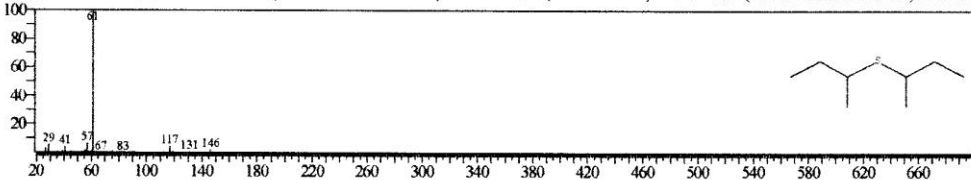
Line#:24 R.Time:11.883(Scan#:827) MassPeaks:366  
RawMode:Averaged 11.875-11.892(826-828) BasePeak:61.05(29642)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:37486 Library:WILEY8.LIB

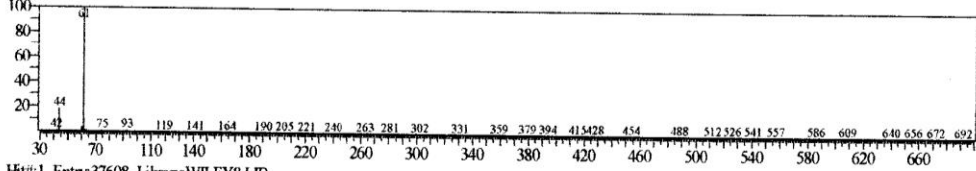
SI:82 Formula:C8H18S CAS:626-26-6 MolWeight:146 RetIndex:0

CompName:BUTANE, 2,2'-THIOBIS- \$\$ 2-(SEC-BUTYL-SULFANYL)BUTANE # \$\$ 2-(2-BUTYLTHIO)BUTANE \$\$ 2-(SEC-BUTYL-SULFANYL)BUTANE

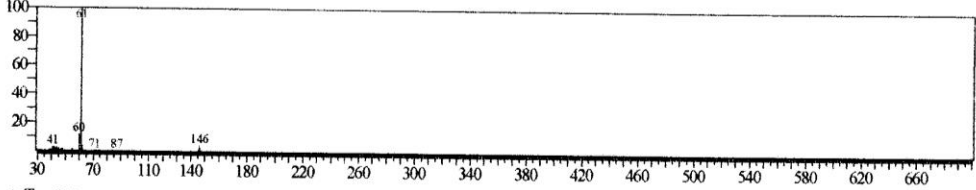


<< Target >>

Line#:25 R.Time:11.925(Scan#:832) MassPeaks:309  
RawMode:Averaged 11.917-11.933(831-833) BasePeak:61.05(86526)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

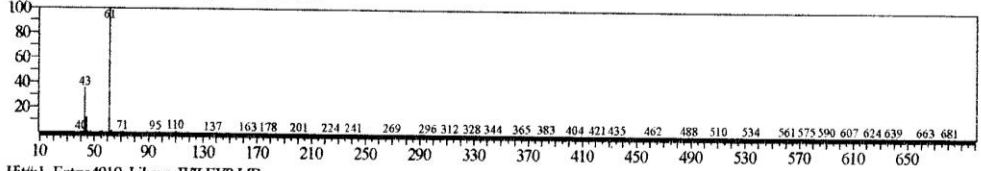


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SE88 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

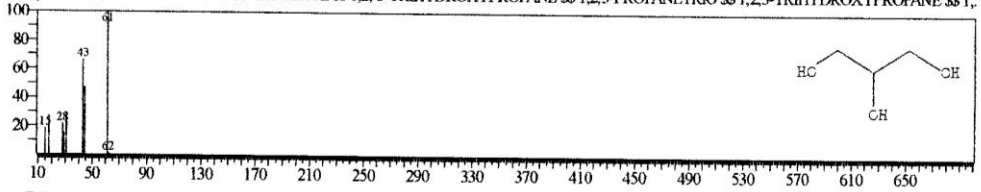


<< Target >>

Line#:26 R.Time:11.967(Scan#:837) MassPeaks:353  
RawMode:Averaged 11.958-11.975(836-838) BasePeak:61.05(64226)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

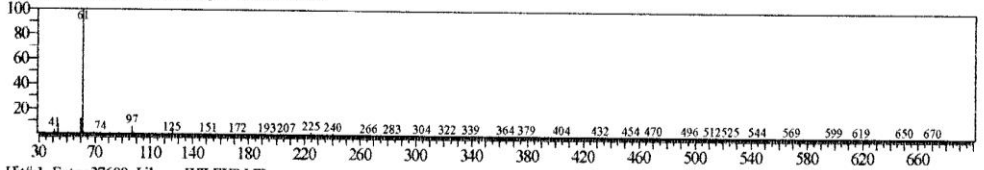


Hit#:1 Entry:4919 Library:WILEY8.LIB  
SE88 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-PROPANETRIO SS 1,2,3-TRIHIDROXYPROPANE SS 1,

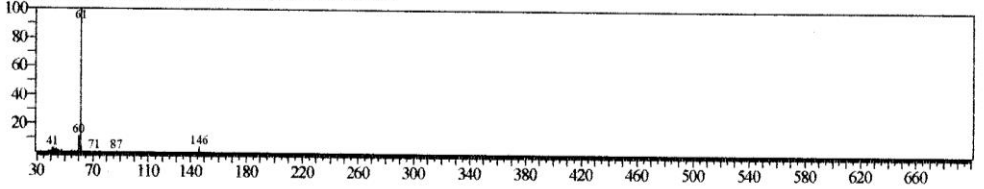


<< Target >>

Line#:27 R.Time:12.133(Scan#:857) MassPeaks:353  
RawMode:Averaged 12.125-12.142(856-858) BasePeak:61.05(95220)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

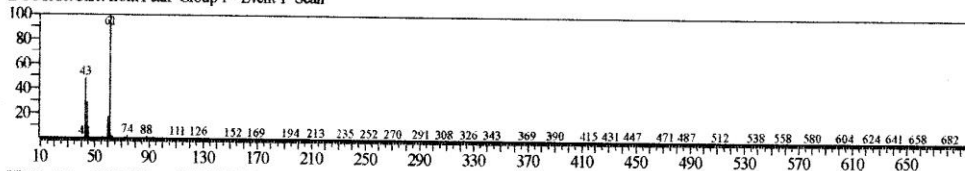


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SI:85 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE



<< Target >>

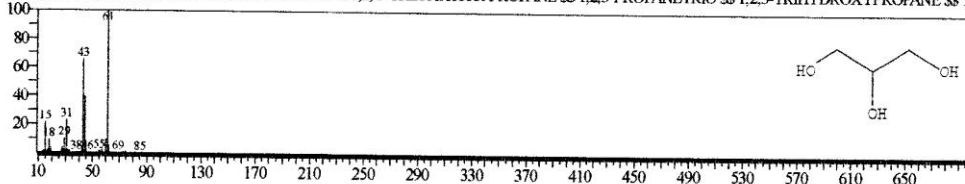
Line#:28 R.Time:12.225(Scan#:868) MassPeaks:247  
RawMode:Averaged 12.217-12.233(867-869) BasePeak:61.05(44022)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:4920 Library:WILEY8.LIB

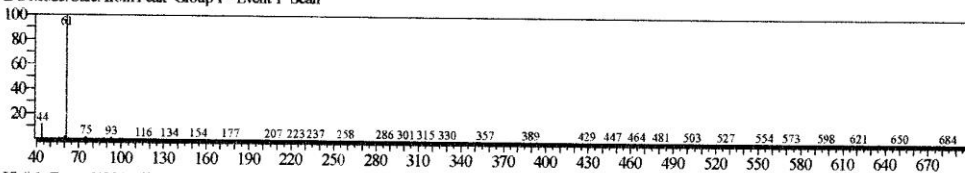
SI:92 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0

CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-TRIHIDROXYPROPANE SS 1,



<< Target >>

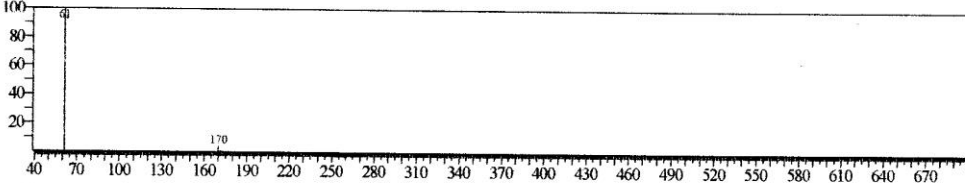
Line#:29 R.Time:12.292(Scan#:876) MassPeaks:276  
RawMode:Averaged 12.283-12.300(875-877) BasePeak:61.05(89733)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:64384 Library:WILEY8.LIB

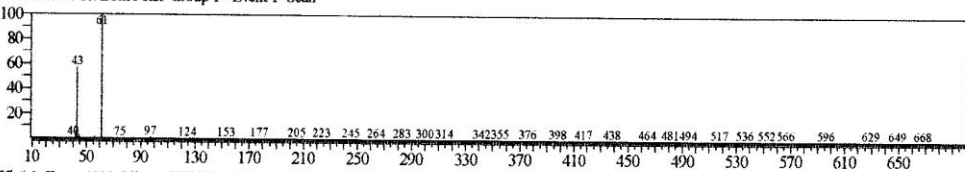
SI:88 Formula:C4H10O5S CAS:0-00-0 MolWeight:170 RetIndex:0

CompName:2,4,6-TRITHIAHEPTANE-2-OXIDE



<< Target >>

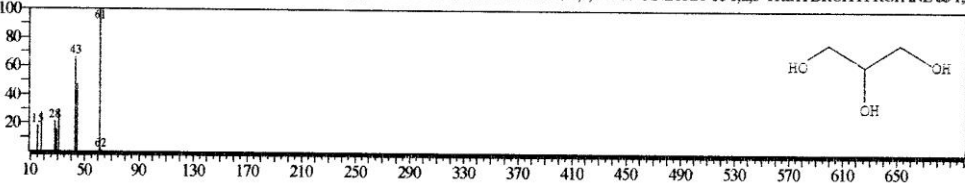
Line#:30 R.Time:12.342(Scan#:882) MassPeaks:283  
RawMode:Averaged 12.333-12.350(881-883) BasePeak:61.05(58103)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:4919 Library:WILEY8.LIB

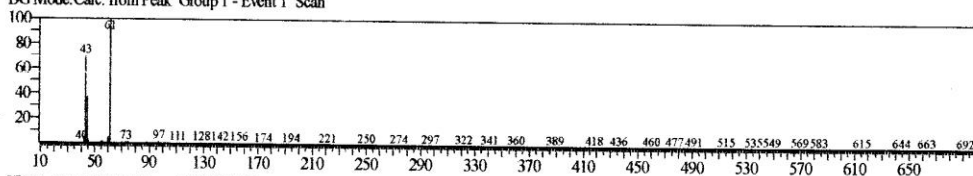
SI:89 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0

CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-PROPANETRIOL SS 1,2,3-TRIHIDROXYPROPANE SS 1,

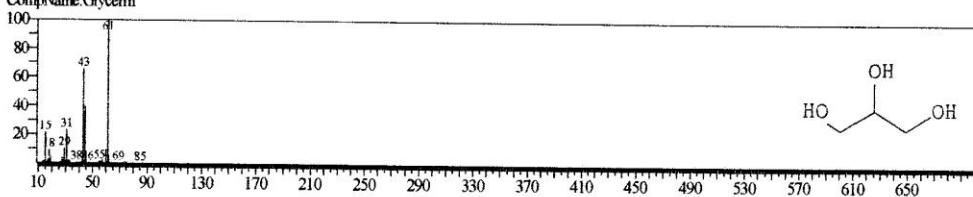


<< Target >>

Line#:31 R.Time:12.417(Scan#:891) MassPeaks:322  
RawMode:Averaged 12.408-12.425(890-892) BasePeak:61.05(86021)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

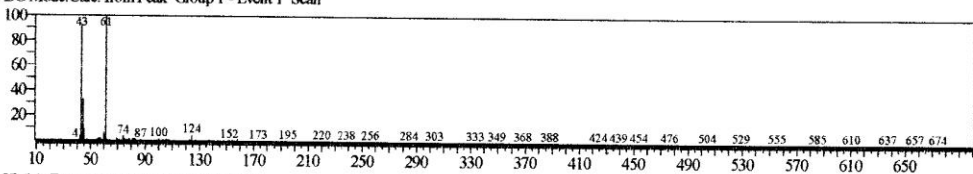


Hit#:1 Entry:1207 Library:NIST27.LIB  
SE95 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:Glycerin

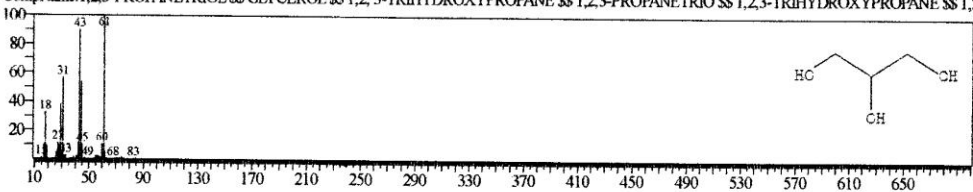


<< Target >>

Line#:32 R.Time:12.608(Scan#:914) MassPeaks:211  
RawMode:Averaged 12.600-12.617(913-915) BasePeak:61.05(65158)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

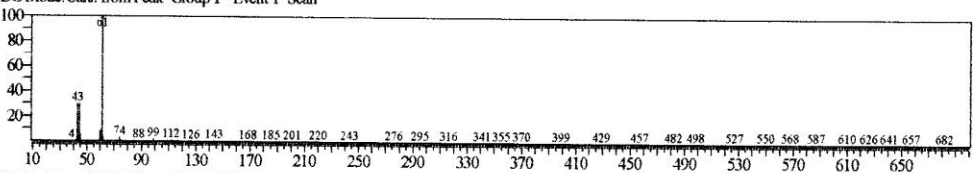


Hit#:1 Entry:4915 Library:WILEY8.LIB  
SE92 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-TRIHIDROXYPROPANE SS 1,

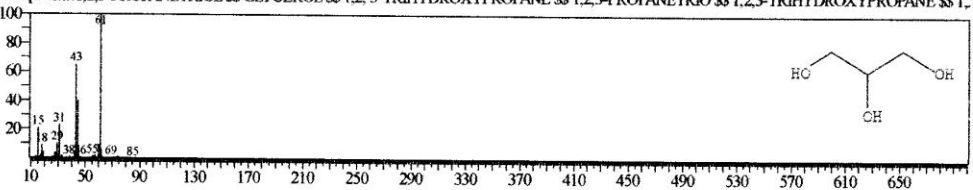


<< Target >>

Line#:33 R.Time:12.700(Scan#:925) MassPeaks:261  
RawMode:Averaged 12.692-12.708(924-926) BasePeak:61.05(68792)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

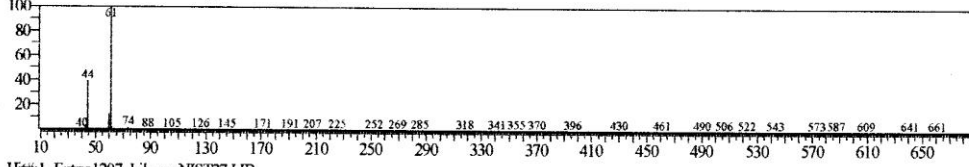


Hit#:1 Entry:4920 Library:WILEY8.LIB  
SE91 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-PROPANETRIO SS 1,2,3-TRIHIDROXYPROPANE SS 1,

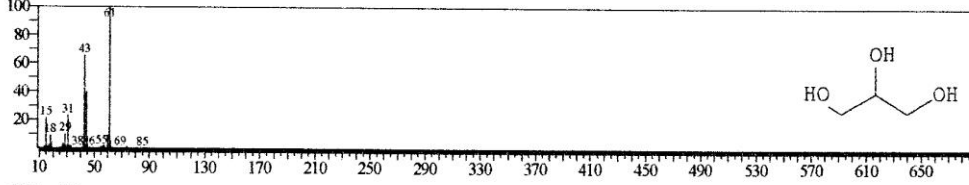


<<Target >>

Line#:34 R.Time:12.767(Scan#:933) MassPeaks:246  
RawMode:Averaged 12.758-12.775(932-934) BasePeak:61.05(93433)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

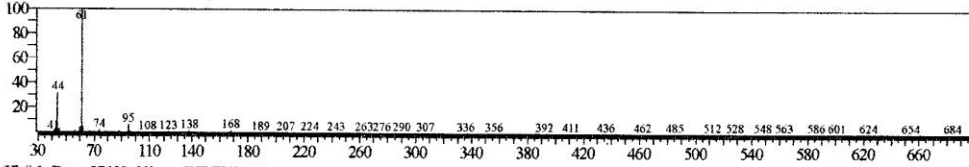


Hit#:1 Entry:1207 Library:NIST27.LIB  
SI:87 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:Glycerin

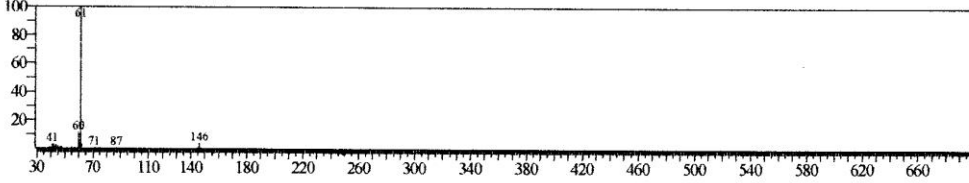


<<Target >>

Line#:35 R.Time:12.850(Scan#:943) MassPeaks:294  
RawMode:Averaged 12.842-12.858(942-944) BasePeak:61.05(102430)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

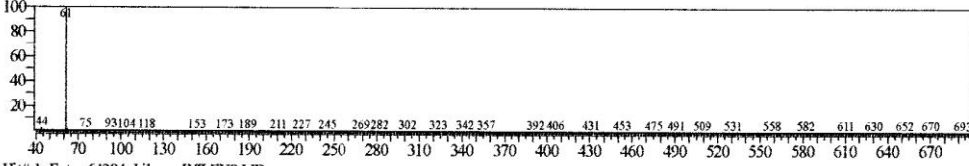


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SI:85 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

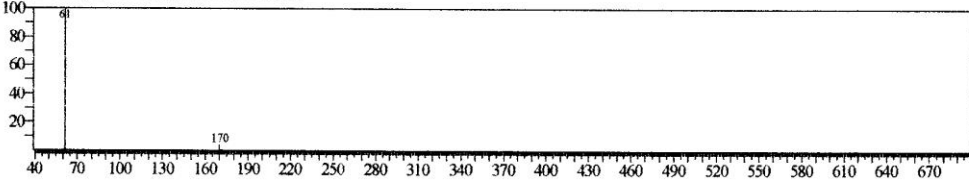


<<Target >>

Line#:36 R.Time:12.900(Scan#:949) MassPeaks:340  
RawMode:Averaged 12.892-12.908(948-950) BasePeak 61.05(152449)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



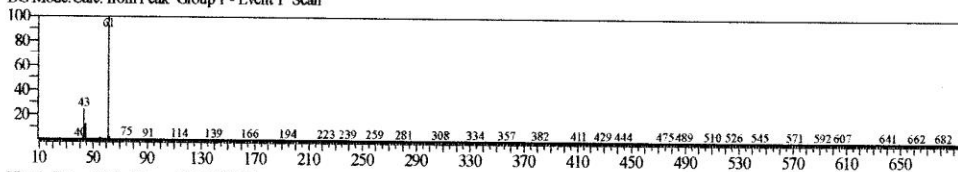
Hit#:1 Entry:64384 Library:WILEY8.LIB  
SI:93 Formula:C4H10O8S CAS:0-00-0 MolWeight:170 RetIndex:0  
CompName:2,4,6-TRITHIAHEPTANE-2-OXIDE



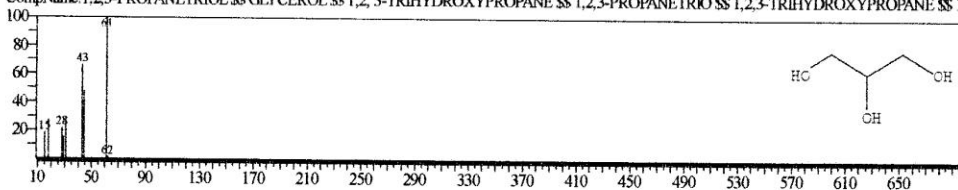


<<Target >>

Line#:37 R.Time:12.950(Scan#:955) MassPeaks:299  
RawMode:Averaged 12.942-12.958(954-956) BasePeak:61.05(89891)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

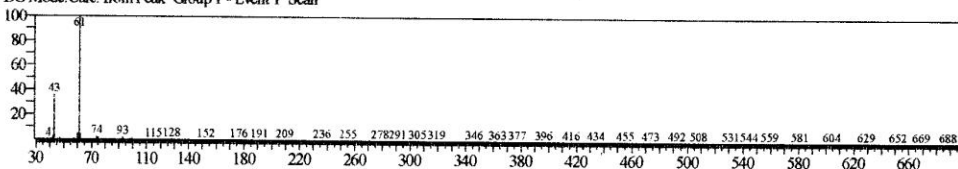


Hit#:1 Entry:4919 Library:WILEY8.LIB  
SI:87 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-TRIHIDROXYPROPANE SS 1,

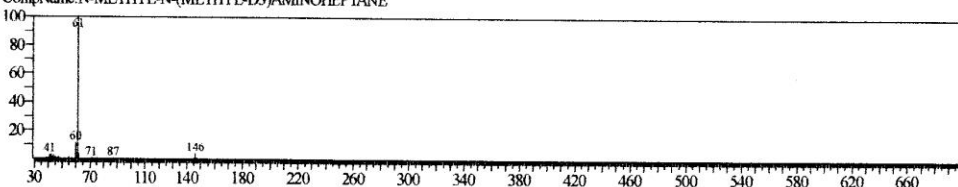


<<Target >>

Line#:38 R.Time:12.992(Scan#:960) MassPeaks:294  
RawMode:Averaged 12.983-13.000(959-961) BasePeak:61.05(54236)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

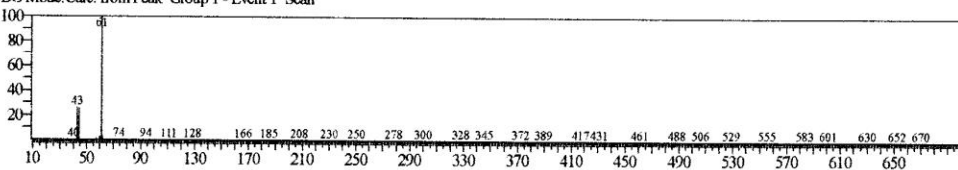


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SI:86 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

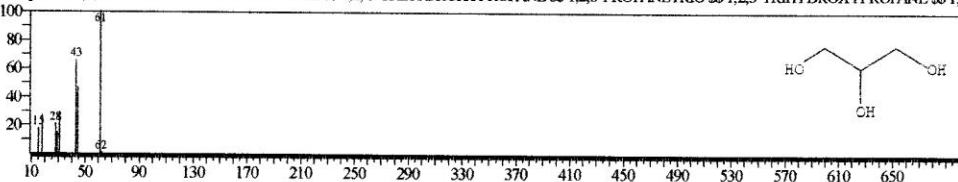


<<Target >>

Line#:39 R.Time:13.058(Scan#:968) MassPeaks:328  
RawMode:Averaged 13.050-13.067(967-969) BasePeak:61.05(97501)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

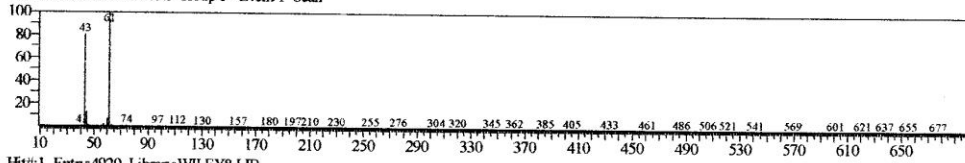


Hit#:1 Entry:4919 Library:WILEY8.LIB  
SI:89 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-TRIHIDROXYPROPANE SS 1,



<<Target >>

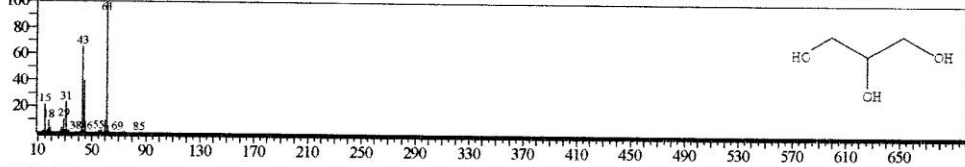
Line#:40 R.Time:13.100(Scan#:973) MassPeaks:370  
RawMode:Averaged 13.092-13.108(972-974) BasePeak:61.05(49785)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:4920 Library:WILEY8.LIB

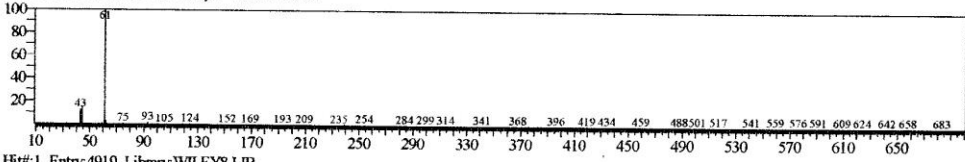
SI:91 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RefIndex:0

CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-PROPANETRIO SS 1,2,3-TRIHIDROXYPROPANE SS 1,



<<Target >>

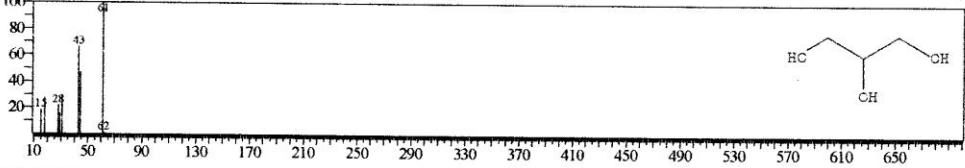
Line#:41 R.Time:13.242(Scan#:990) MassPeaks:268  
RawMode:Averaged 13.233-13.250(989-991) BasePeak:61.05(118712)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:4919 Library:WILEY8.LIB

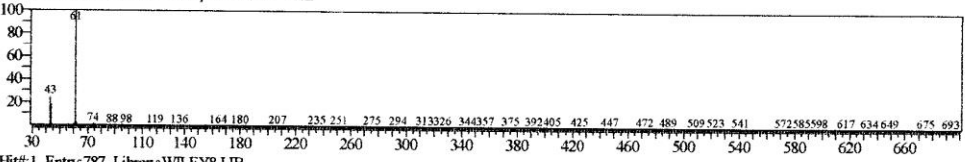
SI:85 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RefIndex:0

CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-PROPANETRIO SS 1,2,3-TRIHIDROXYPROPANE SS 1,



<<Target >>

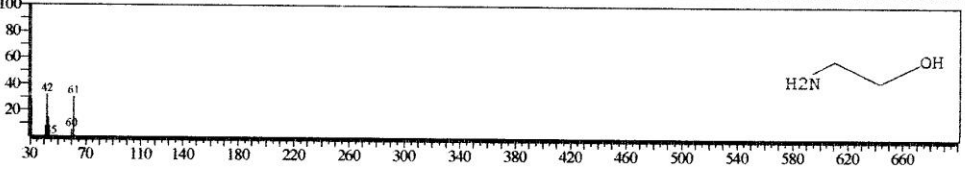
Line#:42 R.Time:13.292(Scan#:996) MassPeaks:316  
RawMode:Averaged 13.283-13.300(995-997) BasePeak:61.05(153730)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:787 Library:WILEY8.LIB

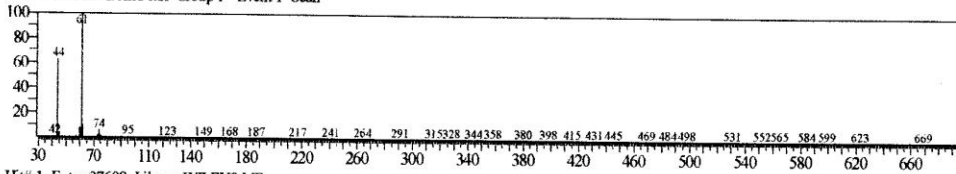
SI:91 Formula:C2H7NO CAS:141-43-5 MolWeight:61 RefIndex:0

CompName:ETHANOL, 2-AMINO- SS 2-AMINOETHANOL SS .BETA.-AMINOETHANOL SS .BETA.-AMINOETHYLALCOHOL SS .BETA.-ETHANOLAM

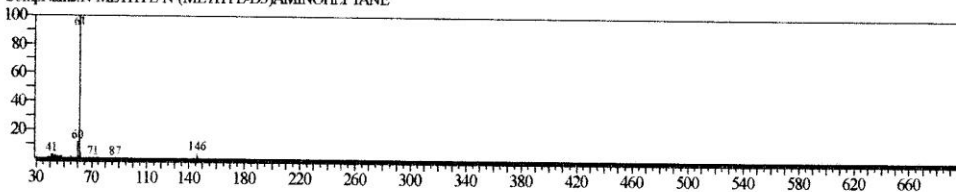


<<Target>>

Line#:43 R.Time:13.367(Scan#:1005) MassPeaks:300  
RawMode:Averaged 13.358-13.375(1004-1006) BasePeak:61.05(62523)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

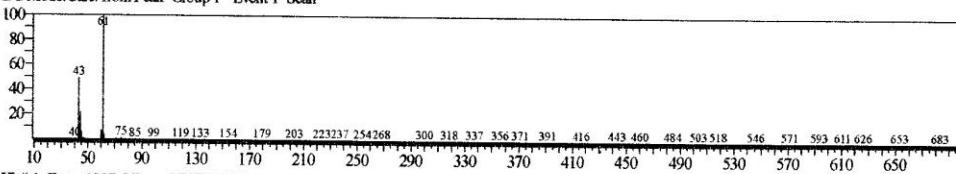


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SI:83 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

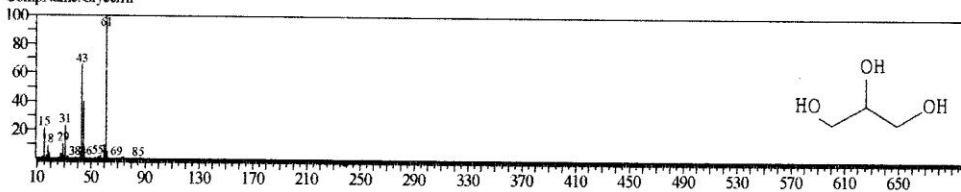


<<Target>>

Line#:44 R.Time:13.433(Scan#:1013) MassPeaks:311  
RawMode:Averaged 13.425-13.442(1012-1014) BasePeak:61.05(101326)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

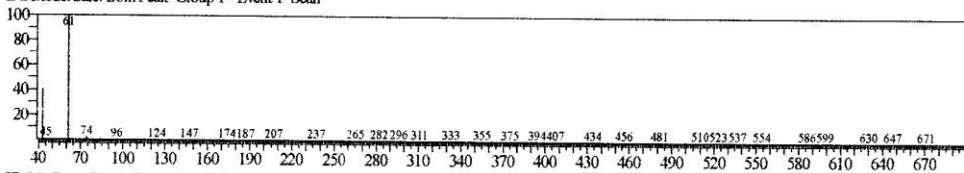


Hit#:1 Entry:1207 Library:NIST27.LIB  
SI:92 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:Glycerin

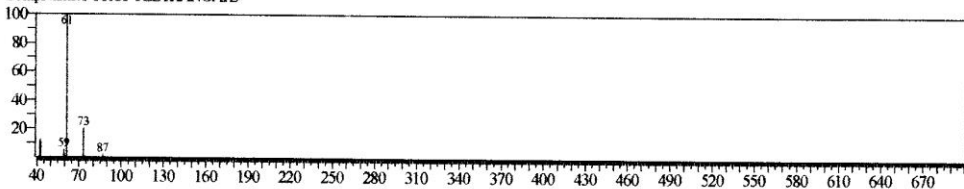


<<Target>>

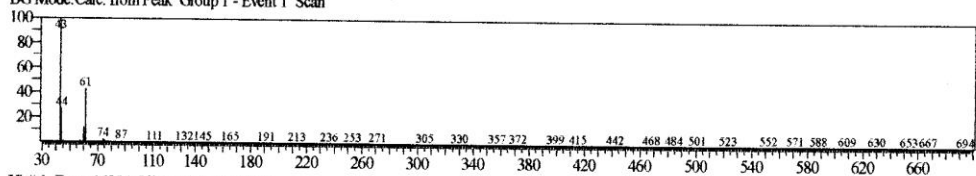
Line#:45 R.Time:13.492(Scan#:1020) MassPeaks:285  
RawMode:Averaged 13.483-13.500(1019-1021) BasePeak:61.05(120156)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



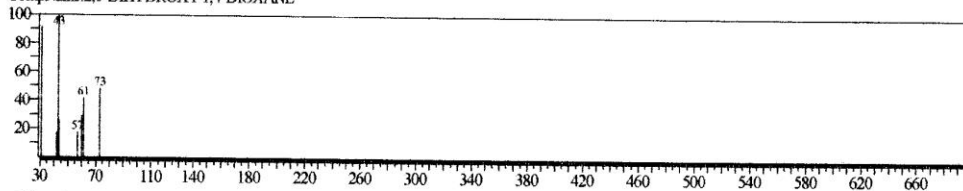
Hit#:1 Entry:8346 Library:WILEY8.LIB  
SI:87 Formula:C5H10O2 CAS:0-00-0 MolWeight:102 RetIndex:0  
CompName:1-PROPYLETHANOATE



RawMode:Averaged 13.517-13.533(1023-1025) BasePeak:43.00(53156)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

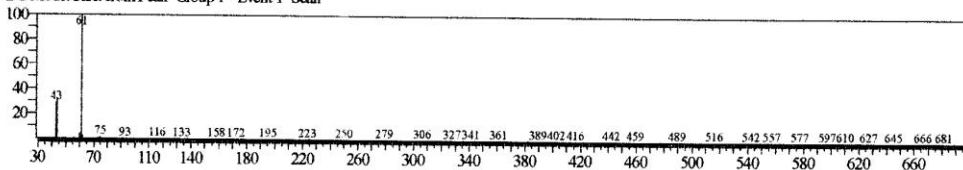


Hit#:1 Entry:16384 Library:WILEY8.LIB  
SI:89 Formula:C4H8O4 CAS:0-00-0 MolWeight:120 RetIndex:0  
CompName:2,5-DIHYDROXY-1,4-DIOXANE

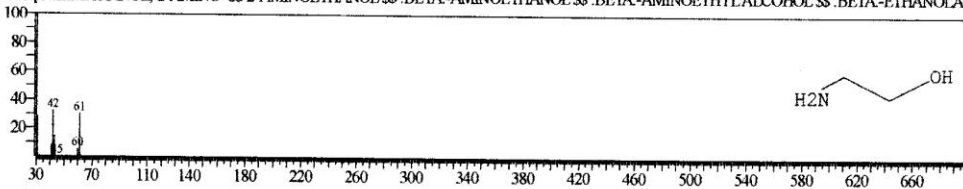


<< Target >>

Line#:47 R.Time:13.642(Scan#:1038) MassPeaks:330  
RawMode:Averaged 13.633-13.650(1037-1039) BasePeak:61.05(105956)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

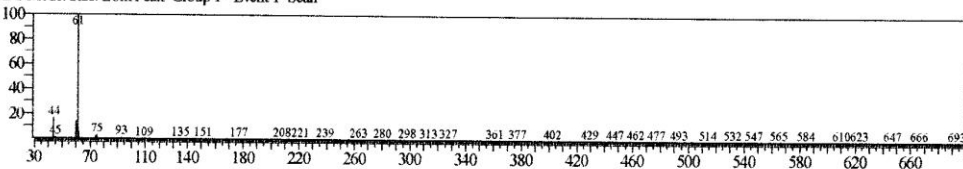


Hit#:1 Entry:787 Library:WILEY8.LIB  
SI:91 Formula:C2H7NO CAS:141-43-5 MolWeight:61 RetIndex:0  
CompName:ETHANOL, 2-AMINO- SS 2-AMINOETHANOL SS .BETA.-AMINOETHANOL SS .BETA.-AMINOETHYLALCOHOL SS .BETA.-ETHANOLAN

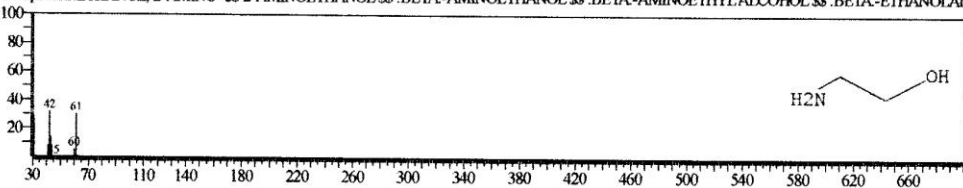


<< Target >>

Line#:48 R.Time:13.700(Scan#:1045) MassPeaks:295  
RawMode:Averaged 13.692-13.708(1044-1046) BasePeak:61.05(74370)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

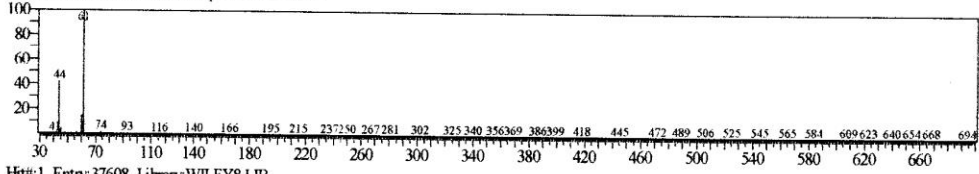


Hit#:1 Entry:787 Library:WILEY8.LIB  
SI:92 Formula:C2H7NO CAS:141-43-5 MolWeight:61 RetIndex:0  
CompName:ETHANOL, 2-AMINO- SS 2-AMINOETHANOL SS .BETA.-AMINOETHANOL SS .BETA.-AMINOETHYLALCOHOL SS .BETA.-ETHANOLAN

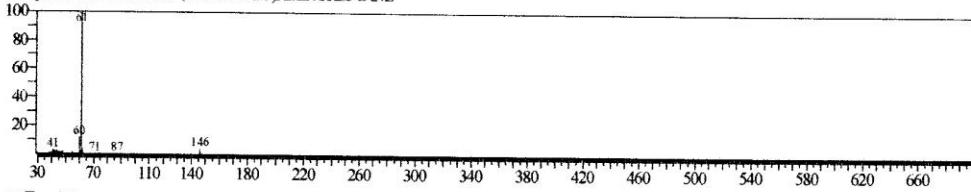


<<Target >>

Line#:49 R.Time:13.750(Scan#:1051) MassPeaks:298  
RawMode:Averaged 13.742-13.758(1050-1052) BasePeak:61.05(110045)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

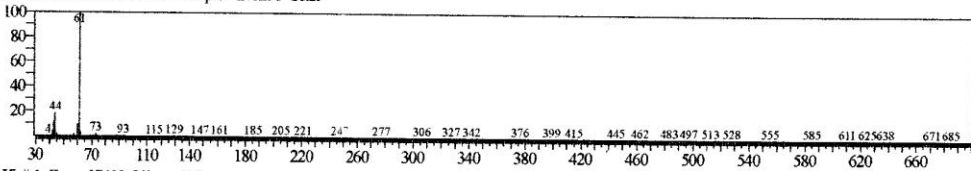


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SE:86 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

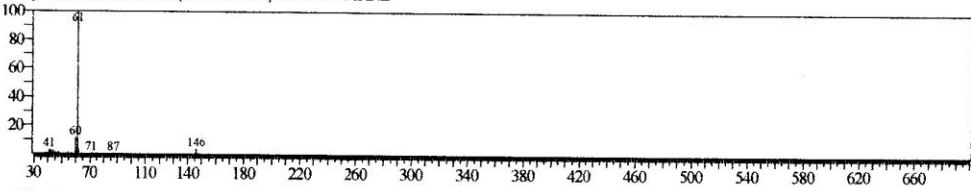


<<Target >>

Line#:50 R.Time:13.833(Scan#:1061) MassPeaks:282  
RawMode:Averaged 13.825-13.842(1060-1062) BasePeak:61.05(104770)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

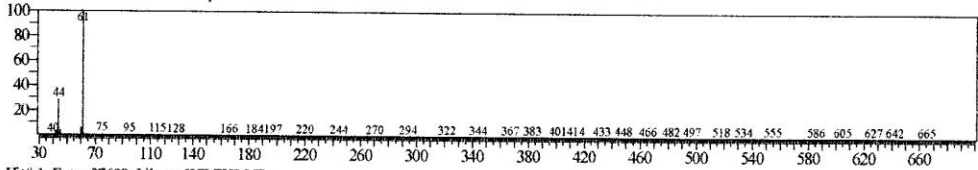


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SE:89 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

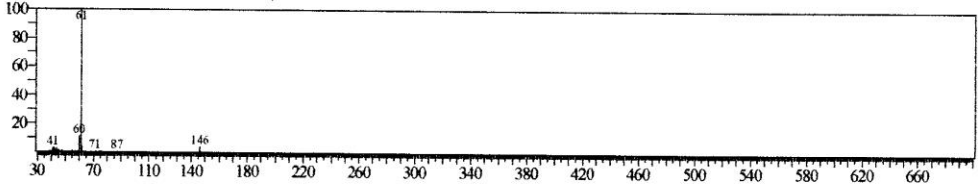


<<Target >>

Line#:51 R.Time:13.967(Scan#:1077) MassPeaks:324  
RawMode:Averaged 13.958-13.975(1076-1078) BasePeak:61.05(132829)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

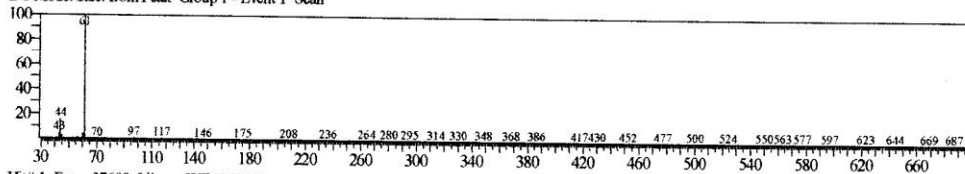


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SE:88 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

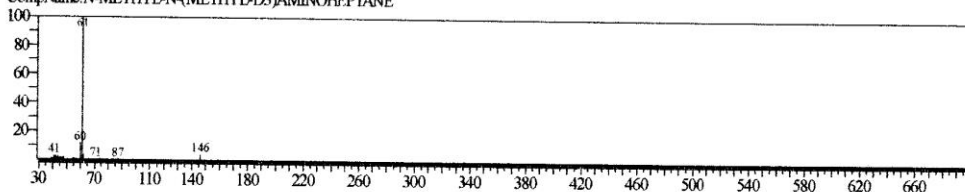


<<Target>>

Line#:52 R.Time:14.017(Scan#:1083) MassPeaks:323  
RawMode:Averaged 14.008-14.025(1082-1084) BasePeak:61.05(42000)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

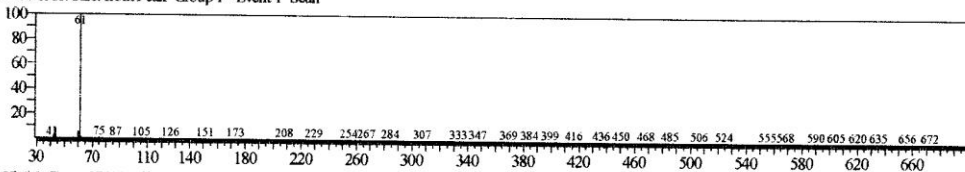


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SI:88 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

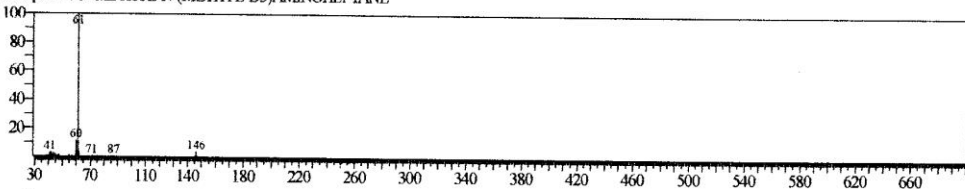


<<Target>>

Line#:53 R.Time:14.050(Scan#:1087) MassPeaks:343  
RawMode:Averaged 14.042-14.058(1086-1088) BasePeak:61.05(174613)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

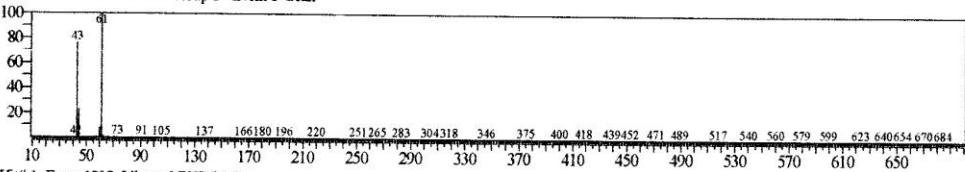


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SI:91 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

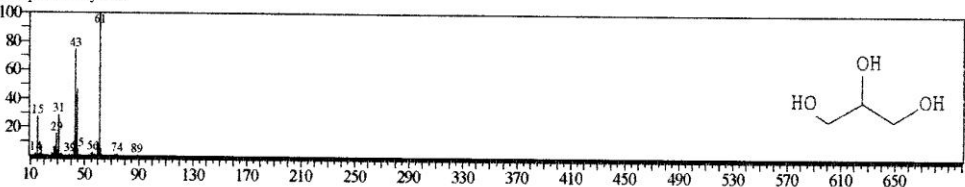


<<Target>>

Line#:54 R.Time:14.100(Scan#:1093) MassPeaks:333  
RawMode:Averaged 14.092-14.108(1092-1094) BasePeak:61.05(70096)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

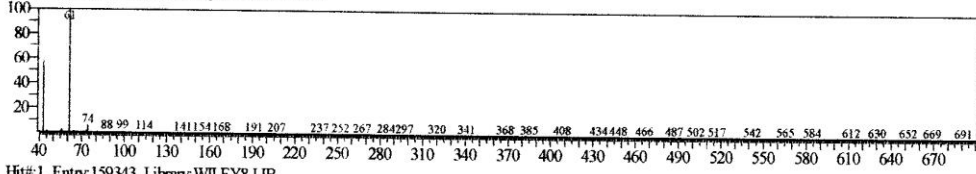


Hit#:1 Entry:1208 Library:NIST27.LIB  
SI:93 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:Glycerin

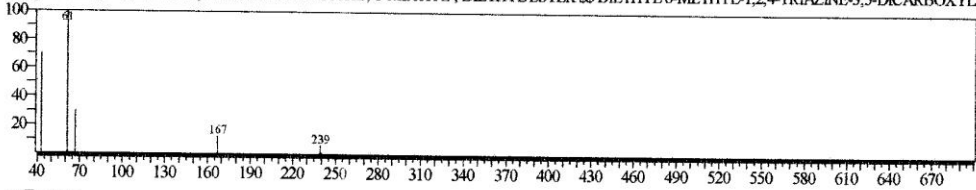


<< Target >>

Line#:55 R.Time:14.142(Scan#:1098) MassPeaks:332  
RawMode:Averaged 14.133-14.150(1097-1099) BasePeak:61.05(30621)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

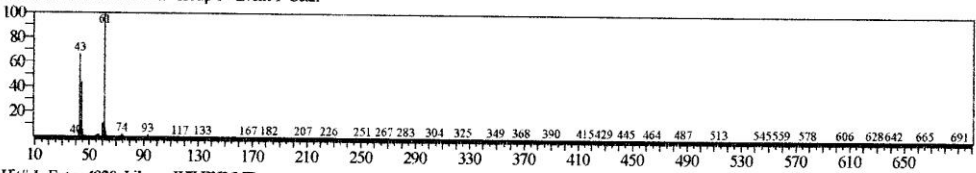


Hit#:1 Entry:159343 Library:WILEY8.LIB  
SI:85 Formula:C10H13N3O4 CAS:126421-92-9 MolWeight:239 RefIndex:0  
CompName:1,2,4-TRIAZINE-3,5-DICARBOXYLIC ACID, 6-METHYL-, DIETHYL ESTER SS DIETHYL 6-METHYL-1,2,4-TRIAZINE-3,5-DICARBOXYL

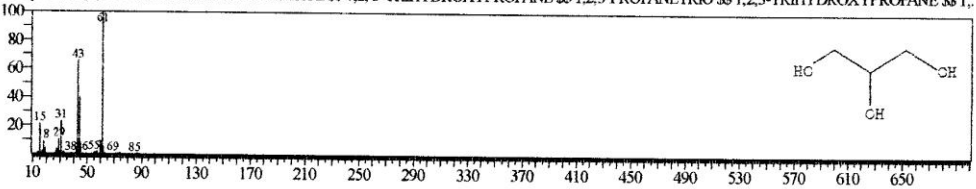


<< Target >>

Line#:56 R.Time:14.217(Scan#:1107) MassPeaks:258  
RawMode:Averaged 14.208-14.225(1106-1108) BasePeak:61.05(1857504)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

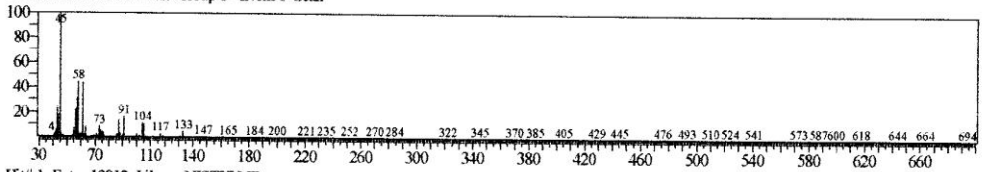


Hit#:1 Entry:4920 Library:WILEY8.LIB  
SI:98 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RefIndex:0  
CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-TRIHIDROXYPROPANE SS 1,

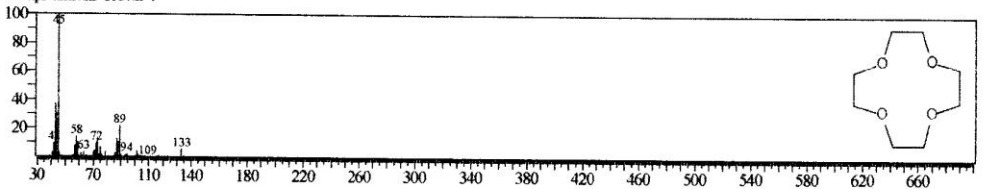


<< Target >>

Line#:57 R.Time:15.450(Scan#:1255) MassPeaks:393  
RawMode:Averaged 15.442-15.458(1254-1256) BasePeak:45.00(522080)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

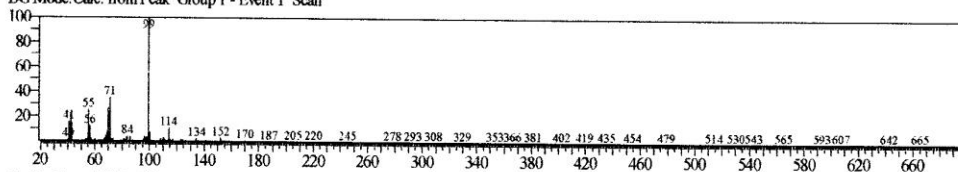


Hit#:1 Entry:12812 Library:NIST7.LIB  
SI:80 Formula:C8H16O4 CAS:294-93-9 MolWeight:176 RefIndex:0  
CompName:12-Crown-4

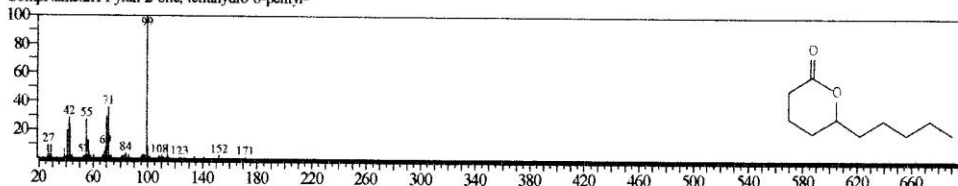


<< Target >>

Line#:58 R.Time:15.575(Scan#:1270) MassPeaks:392  
RawMode:Averaged 15.567-15.583(1269-1271) BasePeak:99.00(312916)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

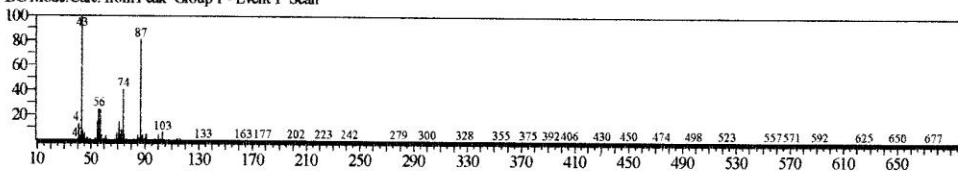


Hit#:1 Entry:11995 Library:NIST27.LIB  
SE:96 Formula:C10H18O2 CAS:705-86-2 MolWeight:170 RetIndex:0  
CompName:2H-Pyran-2-one, tetrahydro-6-pentyl-

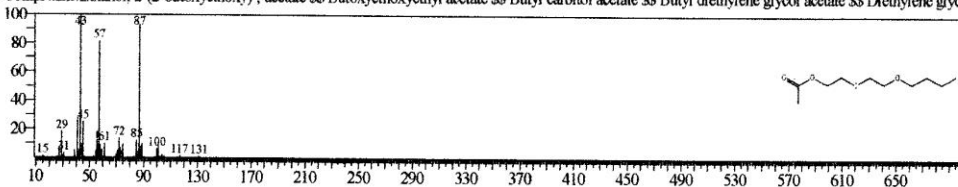


<< Target >>

Line#:59 R.Time:16.350(Scan#:1363) MassPeaks:394  
RawMode:Averaged 16.342-16.358(1362-1364) BasePeak:43.00(185457)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

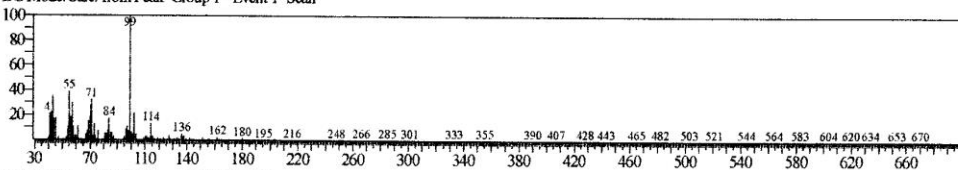


Hit#:1 Entry:41843 Library:NIST147.LIB  
SE:83 Formula:C10H20O4 CAS:124-17-4 MolWeight:204 RetIndex:0  
CompName:Ethanol, 2-(2-butoxyethoxy)-, acetate SS Butoxyethoxyethyl acetate SS Butyl carbitol acetate SS Butyl diethylene glycol acetate SS Diethylene glycol

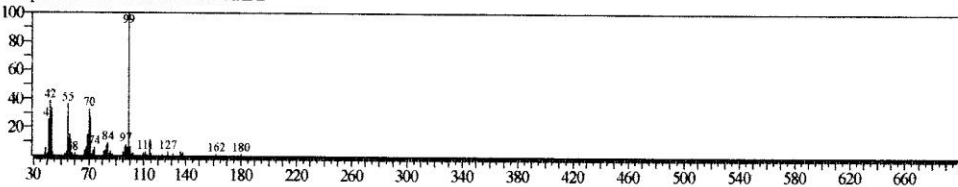


<< Target >>

Line#:60 R.Time:18.267(Scan#:1593) MassPeaks:378  
RawMode:Averaged 18.258-18.275(1592-1594) BasePeak:99.00(45911)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:101526 Library:WILEY8.LIB  
SI:88 Formula:C12H22O2 CAS:0-00-0 MolWeight:198 RetIndex:0  
CompName:5-HEPTYLPENTAN-5-OLIDE





Tabel Komponen volatil *edible film* beraroma (EFA) berdasarkan golongan

No	Nama Komponen	RTime	Luas Area (%)
<b>Ester</b>			
1	1,2-ETHANEDIOL, DIACETATE	5.737	0.23
2	1-PROPYLETHANOATE	13.492	2.19
3	2H-Pyran-2-one, tetrahydro-6-pentyl-	15.577	0.34
<b>Asam Karboksilat</b>			
1	5-HEPTYLPENTAN-5-OLIDE	18.266	0.07
<b>Alkohol</b>			
1	3-Furanmethanol	5.626	0.24
2	Glycerin	9.281	0.56
3	1,2,3-PROPANETRIOL	11.125	0.47
4	1,2,3-PROPANETRIOL	11.183	0.32
5	1,2,3-PROPANETRIOL	11.308	0.79
6	1,2,3,4-BUTANETETROL	11.442	1.23
7	1,2,3-PROPANETRIOL	11.500	0.51
8	1,2,3-PROPANETRIOL	11.692	0.76
9	1,2,3-PROPANETRIOL	11.750	1.05
10	1,2,3-PROPANETRIOL	11.971	0.72
11	1,2,3-PROPANETRIOL	12.225	2.34
12	1,2,3-PROPANETRIOL	12.342	1.39
13	Glycerin	12.417	2.08
14	1,2,3-PROPANETRIOL	12.608	5.47
15	1,2,3-PROPANETRIOL	12.700	1.72
16	Glycerin	12.767	2.82
17	1,2,3-PROPANETRIOL	12.950	1.70
18	1,2,3-PROPANETRIOL	13.058	2.40
19	1,2,3-PROPANETRIOL	13.100	1.54
20	1,2,3-PROPANETRIOL	13.240	5.46
21	ETHANOL, 2-AMINO-	13.292	3.37
22	Glycerin	13.433	2.50
23	2,5-DIHYDROXY-1,4-DIOXANE	13.525	1.85
24	ETHANOL, 2-AMINO-	13.640	4.98
25	ETHANOL, 2-AMINO-	13.700	2.76
26	Glycerin	14.100	2.72
27	1,2,3-PROPANETRIOL	14.215	5.91
<b>Keton</b>			
1	4-CYCLOPENTENE-1,3-DIONE	5.984	0.46
2	1,2-CYCLOOCTANEDIONE	6.803	0.21

No	Nama Komponen	RTime	Luas Area (%)
<b>Amina</b>			
1	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	10.950	0.11
2	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	11.842	0.89
3	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	11.925	0.84
4	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	12.133	3.22
5	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	12.850	2.43
6	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	12.992	1.16
7	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	13.367	2.42
8	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	13.750	2.83
9	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	13.833	4.58
10	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	13.967	6.94
11	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	14.017	1.78
12	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	14.053	2.25
<b>Amida</b>			
1	N,N-Dimethylhexanamide	9.467	0.20
<b>Alkil halide</b>			
1	ETHENE, 1,1-DICHLORO-	5.131	0.41
<b>Eter</b>			
1	OXIRANE, (ETHOXYMETHYL)-	9.758	0.11
2	12-Crown-4	15.454	0.50
3	Ethanol, 2-(2-butoxyethoxy)-, acetate	16.352	0.57
<b>Ester hidroksil</b>			
1	2-Hydroxy-gamma-butyrolactone	8.299	0.31
2	1,2,3-Propanetriol, monoacetate	10.042	0.21
<b>Alkana</b>			
1	UNDECANE	9.566	0.13
2	2,4,6-TRITHIAHEPTANE-2-OXIDE	12.292	1.15
3	2,4,6-TRITHIAHEPTANE-2-OXIDE	12.900	1.39
<b>Sulfur alkana</b>			
1	BUTANE, 2,2'-THIOBIS-	11.617	0.81
2	BUTANE, 2,2'-THIOBIS-	11.883	0.66

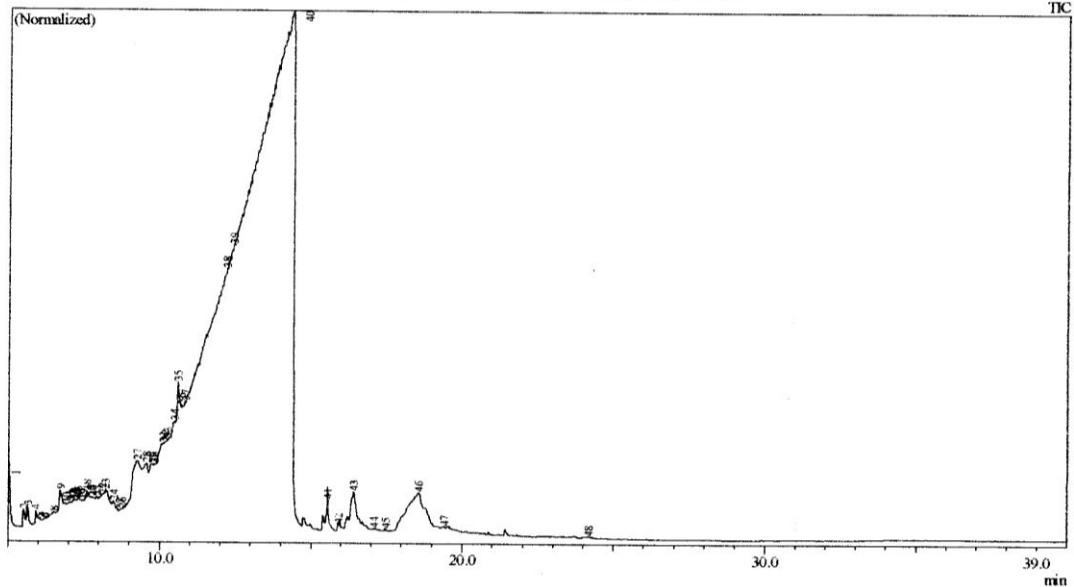
No	Nama Komponen	RTime	Luas Area (%)
<b>Keton hidroksil eter</b>			
1	4H-Pyran-4-one, 2,3-dihydro-3,5-dihydroxy-6-methyl-	10.608	0.30
<b>Hidroksil eter</b>			
1	OXIRANEMETHANOL	11.550	0.82
<b>Asam karboksilat ester</b>			
1	1,2,4-TRIAZINE-3,5-DICARBOXYLIC ACID, 6-METHYL-, DIETHYL ESTER	14.142	1.83

Lampiran 15. Hasil analisa senyawa volatil *edible film* tanpa aroma (EFNA)

**DATA REPORT GCMS-QP2010 ULTRA SHIMADZU**

Sample Information  
 Analyzed by : Admin  
 Analyzed : 22/10/2020 5:58:07 PM  
 Sample Type : Unknown  
 Level # : 1  
 Sample Name : NAEF  
 Sample ID :  
 IS Amount : [1]-1  
 Sample Amount : 1

Chromatogram NAEF C:\GCMSsolution\Data\Project\1\NAEF.qsd



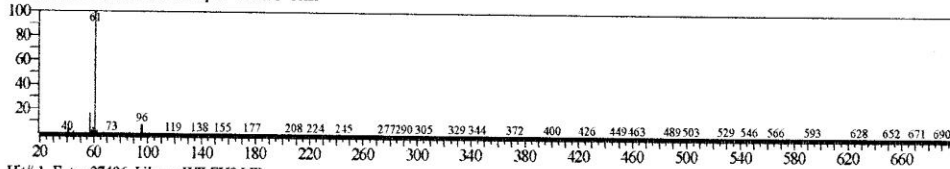
Peak#	R.Time	Area	Area%	A/H	Name
1	5.049	914927	0.03	1.53	BUTANE, 2,2'-THIOBIS-
2	5.510	2860912	0.10	4.74	2-FURANMETHANOL
3	5.635	4132023	0.14	5.68	2-Propanone, 1-(acetyloxy)-
4	5.917	3679345	0.13	6.57	4-CYCLOPENTENE-1,3-DIONE #
5	6.048	1571820	0.05	4.73	1,2,3-Propanetriol, monoacetate
6	6.192	2056199	0.07	6.93	1,4-DIOXANE, 2,3-DIMETHOXY-
7	6.250	618860	0.02	1.99	BUTYRIC ACID-2-D1
8	6.499	7761442	0.27	14.51	2-Propenoic acid, 4-methylpentyl ester
9	6.709	14935974	0.51	11.53	1,2-Cyclopentanedione
10	6.908	4080557	0.14	4.97	N,N-Dimethyl-O-(1-methyl-butyl)-hydroxylamine
11	7.033	7652355	0.26	8.62	N,N-Dimethyl-O-(1-methyl-butyl)-hydroxylamine
12	7.125	3641812	0.13	3.88	S-Ethyl ethanethioate
13	7.183	3355816	0.12	3.45	2-Furanmethanol, 5-methyl-
14	7.232	2864847	0.10	2.96	PROPANOIC ACID, ETHENYL ESTER
15	7.314	6970530	0.24	6.73	2-FURAN-CARBOXALDEHYDE, 5-METHYL-
16	7.408	3308506	0.11	3.49	Glycerin
17	7.467	2817355	0.10	2.96	1,2,3-PROPANETRIOL
18	7.600	11973470	0.41	9.50	2,4-Dihydroxy-2,5-dimethyl-3(2H)-furan-3-one
19	7.708	3731324	0.13	3.50	METHYL 3-ACETYLPROPANOATE
20	7.775	6253144	0.22	5.88	3-Hexanol, 3-ethyl-
21	7.930	9794798	0.34	9.16	1,2-Cyclohexanedione
22	8.100	9268489	0.32	8.08	ETHANOL, 2-(CYCLOHEXYLAMINO)-
23	8.218	19458532	0.67	14.98	2-Hydroxy-gamma-butyrolactone
24	8.472	10683864	0.37	11.65	2-CYCLOPENTEN-1-ONE, 2-HYDROXY-3-METHYL-
25	8.675	1520955	0.05	2.48	BUTANE, 2,2'-THIOBIS-
26	8.742	2928410	0.10	4.40	1,2,3,4-BUTANETETROL, [S-(R*,R*)]-

Peak#	R.Time	Area	Area%	A/H Name
27	9.251	58416154	2.01	25.21 Glycerin
28	9.560	28400895	0.98	12.68 UNDECANE
29	9.757	19344479	0.67	8.76 PENTANAL
30	9.808	8810299	0.30	3.97 2-[(DIMETHYLAMINO)OXY]PENTANE
31	10.092	42069828	1.45	14.38 1,2,3-Propanetriol, monoacetate
32	10.150	13333148	0.46	4.46 1,2,3-PROPANETRIOL
33	10.243	13651718	0.47	4.44 3-Ethoxy-5-propoxymethyl-4,5-dihydroisoxazole
34	10.483	48948583	1.68	13.26 1,1-D2-2-(D3-METHYL)-4-METHYL-1-PENTENE
35	10.588	44238474	1.52	8.75 4H-Pyran-4-one, 2,3-dihydro-3,5-dihydroxy-6-methyl-
36	10.699	12641502	0.44	2.96 N-METHYL-N-(METHYL-D3)AMINOHEPTANE
37	10.811	29993162	1.03	6.86 ETHANOL, 2-AMINO-
38	12.192	549261267	18.90	60.94 1,2,3-PROPANETRIOL
39	12.400	108348442	3.73	11.03 1,2,3-PROPANETRIOL
40	14.339	1664947639	57.30	93.08 Glycerin
41	15.547	8781913	0.30	6.70 12-Crown-4
42	15.909	2415679	0.08	9.99 2-Propenoic acid, 2-methyl-, hexyl ester
43	16.418	27828867	0.96	20.42 Ethanol, 2-(2-butoxyethoxy)-, acetate
44	17.098	297298	0.01	5.73 3(2H)-FURANONE, 4-ETHOXY-2,5-DIMETHYL-
45	17.475	226213	0.01	3.22 6-Tridecanol, 3,9-diethyl-
46	18.554	63493080	2.19	46.06 3-Deoxy-D-mannonic lactone
47	19.390	10427797	0.36	43.82 Propionic acid, 4-hydroxy-3-hexyl ester
48	24.180	703698	0.02	18.53 PENTANOIC ACID, BUTYL ESTER
		2905416401	100.00	

Library

<< Target >>

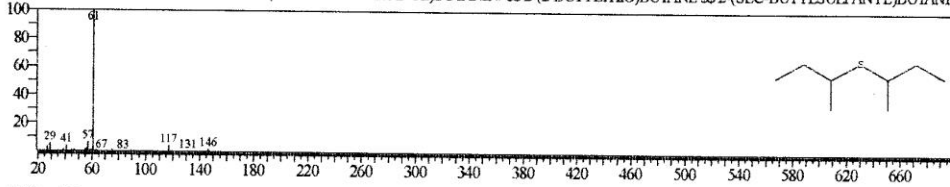
Line#:1 R.Time:5.050(Scan#:7) MassPeaks:269  
RawMode:Averaged 5.042-5.058(6-8) BasePeak:61.00(360015)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:37486 Library:WILEY8.LIB

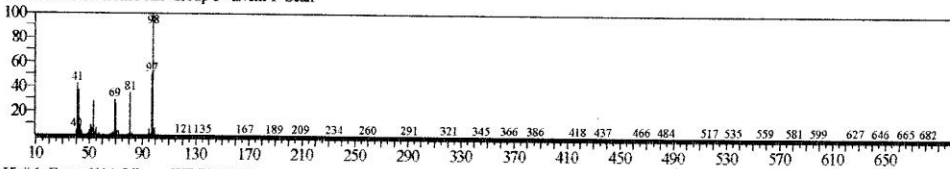
SI:85 Formula:C8H18S CAS:626-26-6 MolWeight:146 RetIndex:0

CompName: BUTANE, 2,2-THIOBIS- SS 2-(SEC-BUTYLSULFANYL)BUTANE # SS 2-(2-BUTYLTHIO)BUTANE SS 2-(SEC-BUTYLSULFANYL)BUTANE



<< Target >>

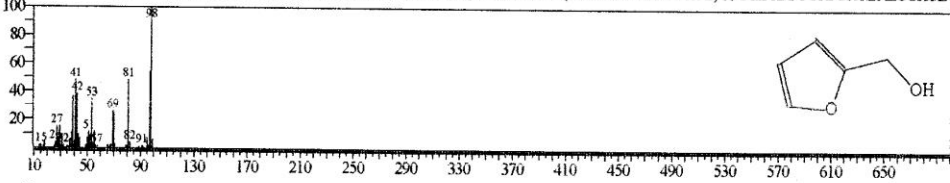
Line#:2 R.Time:5.508(Scan#:62) MassPeaks:257  
RawMode:Averaged 5.500-5.517(61-63) BasePeak:98.00(116409)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:6114 Library:WILEY8.LIB

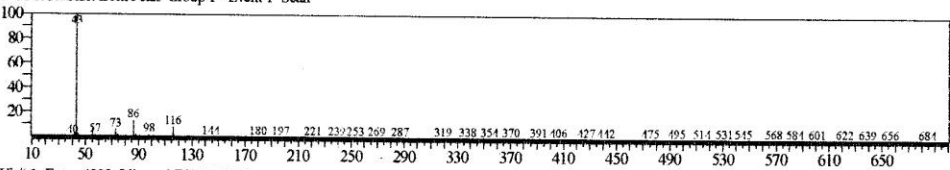
SI:96 Formula:C5H6O2 CAS:98-00-0 MolWeight:98 RetIndex:0

CompName: 2-FURANMETHANOL SS 2-FURYL METHANOL SS (2-FURYL)-METHANOL (FURFURYLALCOHOL) SS ALPHA-FURFURYLALCOHOL



<< Target >>

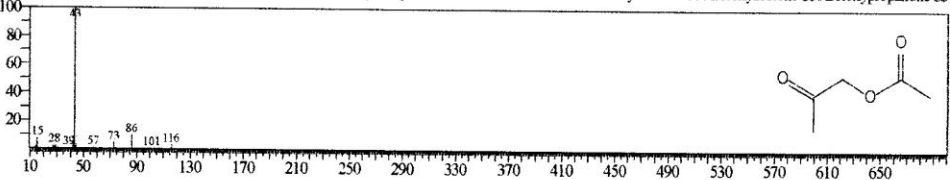
Line#:3 R.Time:5.633(Scan#:77) MassPeaks:292  
RawMode:Averaged 5.625-5.642(76-78) BasePeak:43.00(341983)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:4383 Library:NIST147.LIB

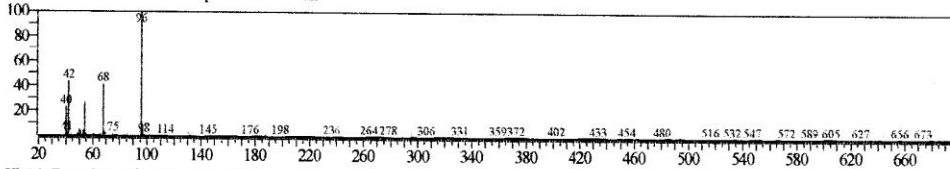
SI:94 Formula:C5H8O3 CAS:592-20-1 MolWeight:116 RetIndex:0

CompName: 2-Propanone, 1-(acetoxy)- SS 2-Propanone, 1-hydroxy-, acetate SS Acetyl acetate SS Acetyl acetate SS Acetoxyacetone SS Acetoxypropanone SS

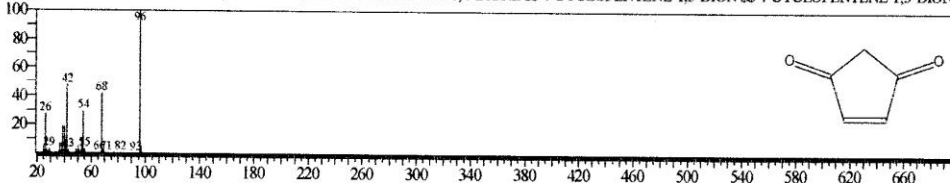


<< Target >>

Line#:4 R.Time:5.917(Scan#:111) MassPeaks:264  
RawMode:Averaged 5.908-5.925(110-112) BasePeak:96.00(137052)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

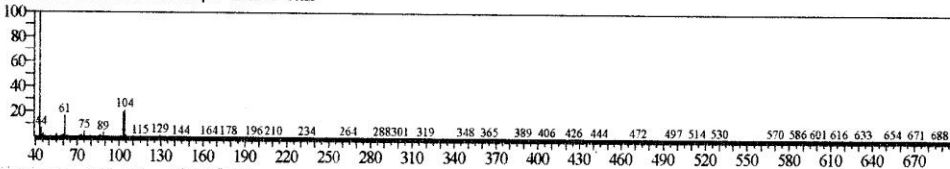


Hit#:1 Entry:5568 Library:WILEY8.LIB  
SI:96 Formula:C5H4O2 CAS:930-60-9 MolWeight:96 RetIndex:0  
CompName:4-CYCLOPENTENE-1,3-DIONE # SS 2-CYCLOPENTENE-1,4-DIONE SS 4-CYCLOPENTENE-1,3-DION SS 4-CYCLOPENTENE-1,3-DIONE

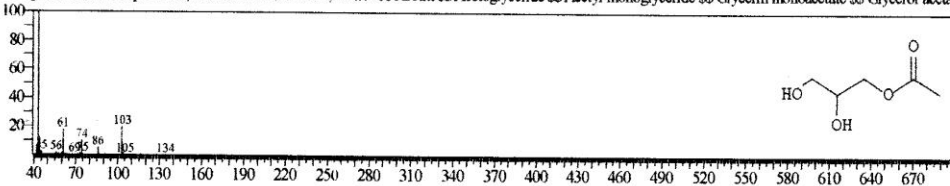


<< Target >>

Line#:5 R.Time:6.050(Scan#:127) MassPeaks:289  
RawMode:Averaged 6.042-6.058(126-128) BasePeak:43.00(34415)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

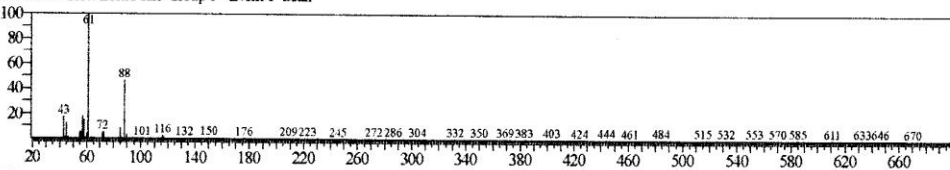


Hit#:1 Entry:8591 Library:NIST147.LIB  
SI:90 Formula:C5H10O4 CAS:26446-35-5 MolWeight:134 RetIndex:0  
CompName:1,2,3-Propanetriol, monoacetate SS Acetin, mono- SS Acetin SS Acetoglyceride SS Acetyl monoglyceride SS Glycerin monoacetate SS Glycerol acetat

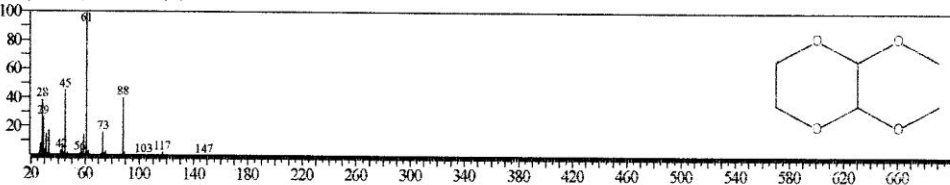


<< Target >>

Line#:6 R.Time:6.192(Scan#:144) MassPeaks:384  
RawMode:Averaged 6.183-6.200(143-145) BasePeak:61.05(6801)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

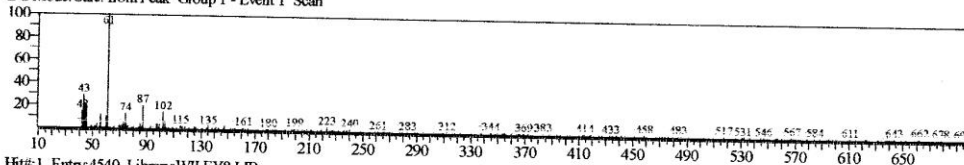


Hit#:1 Entry:38639 Library:WILEY8.LIB  
SI:80 Formula:C6H12O4 CAS:23918-30-1 MolWeight:148 RetIndex:0  
CompName:1,4-DIOXANE, 2,3-DIMETHOXY-

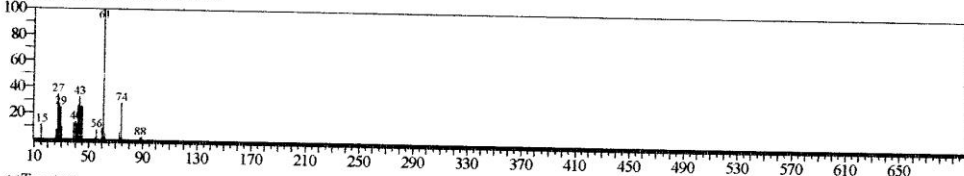


<<Target>>

Line#:7 R.Time:6.250(Scan#:151) MassPeaks:352  
RawMode:Averaged 6.242-6.258(150-152) BasePeak:61.05(1291)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

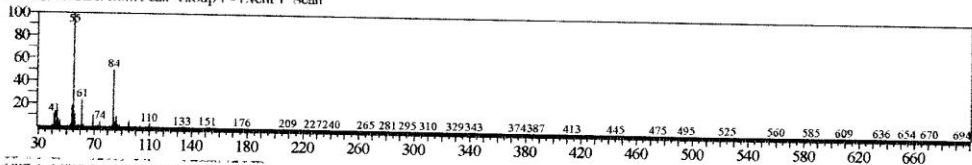


Hit#:1 Entry:4540 Library:WILFY8.LIB  
SI:74 Formula:C4H7DO2 CAS:0-00-0 MolWeight:89 RetIndex:0  
CompName: BUTYRIC ACID-2-D1

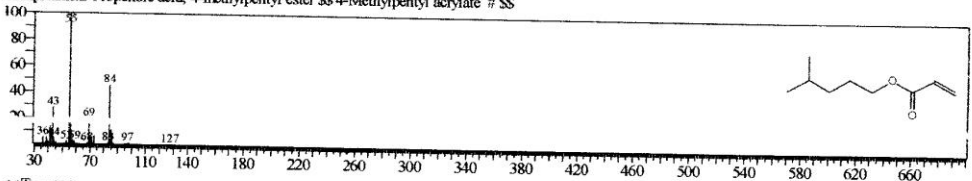


<<Target>>

Line#:8 R.Time:6.500(Scan#:181) MassPeaks:278  
RawMode:Averaged 6.492-6.508(180-182) BasePeak:55.00(24226)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

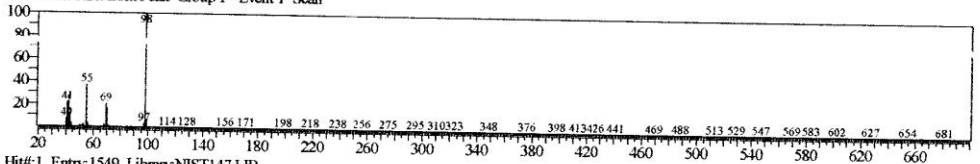


SI:83 Formula:C9H16O2 CAS:5143-30-6 MolWeight:156 RetIndex:0  
CompName:2-Propenoic acid, 4-methylpentyl ester SS 4-Methylpentyl acrylate # SS

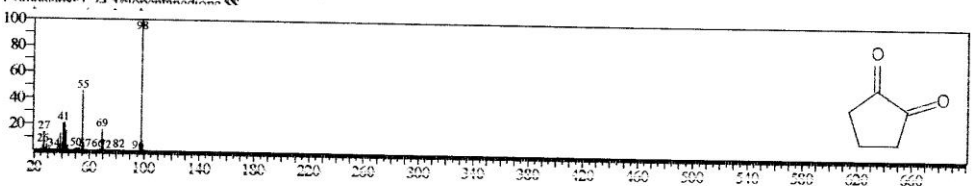


<<Target>>

Line#:9 R.Time:6.708(Scan#:206) MassPeaks:410  
RawMode:Averaged 6.700-6.717(205-207) BasePeak:98.00(241137)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



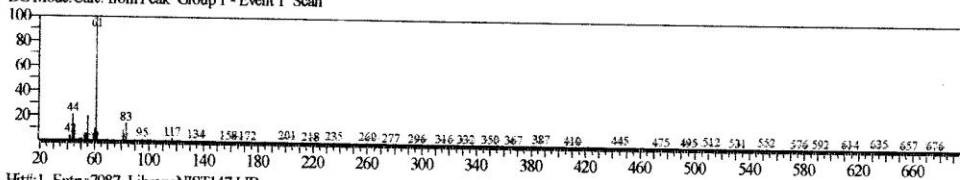
Hit#:1 Entry:1549 Library:NIST147.LIB  
SI:96 Formula:C5H6O2 CAS:3008-40-0 MolWeight:98 RetIndex:0  
CompName:1,2-Cyclopentanone SS



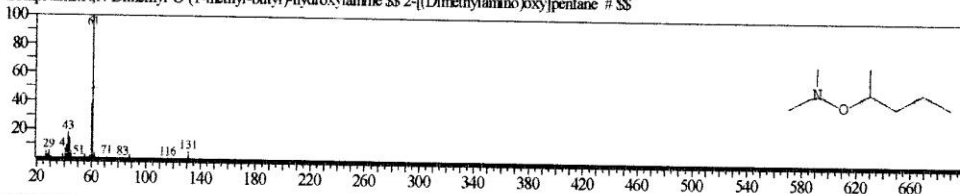


<<Target>>

Line#:10 R.Time:6.908(Scan#:230) MassPeaks:282  
RawMode:Averaged 6.900-6.917(229-231) BasePeak:61.05(9221)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

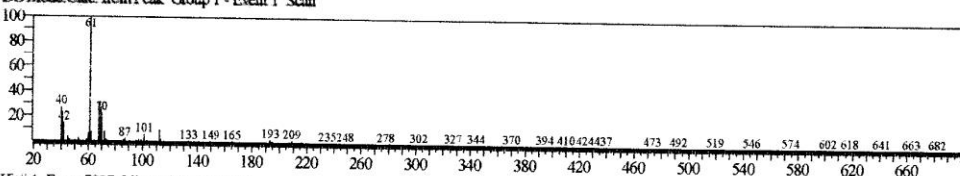


Hit#:1 Entry:7987 Library:NIST147.LIB  
SI:78 Formula:C7H17NO CAS:0-00-0 MolWeight:131 RetIndex:0  
CompName:N,N-Dimethyl-O-(1-methyl-butyl)-hydroxylamine SS 2-[(Dimethylamino)oxy]pentane # SS

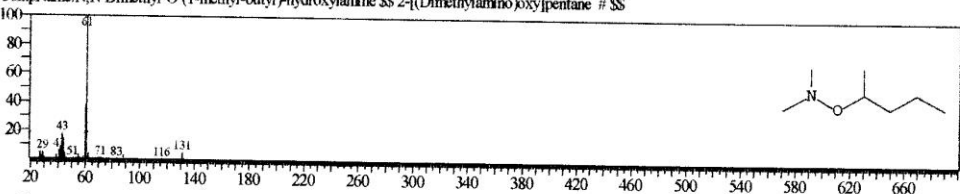


<<Target>>

Line#:11 R.Time:7.033(Scan#:245) MassPeaks:347  
RawMode:Averaged 7.025-7.042(244-246) BasePeak:61.05(18427)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

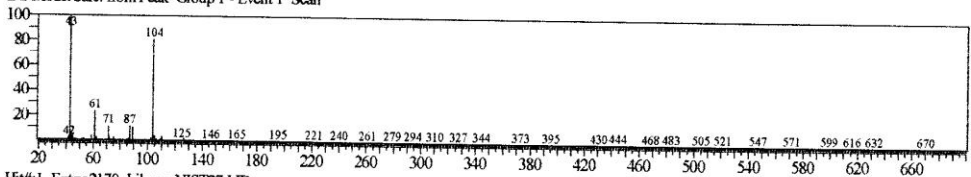


Hit#:1 Entry:7987 Library:NIST147.LIB  
SI:68 Formula:C7H17NO CAS:0-00-0 MolWeight:131 RetIndex:0  
CompName:N,N-Dimethyl-O-(1-methyl-butyl)-hydroxylamine SS 2-[(Dimethylamino)oxy]pentane # SS

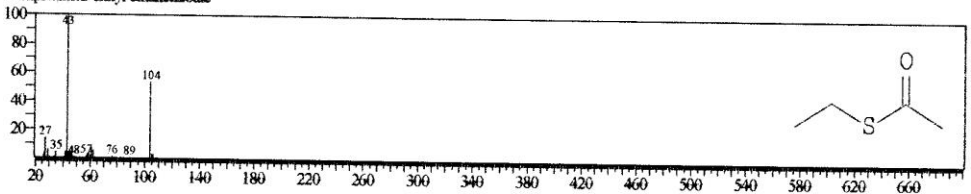


<<Target>>

Line#:12 R.Time:7.125(Scan#:256) MassPeaks:344  
RawMode:Averaged 7.117-7.133(255-257) BasePeak:43.00(14384)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

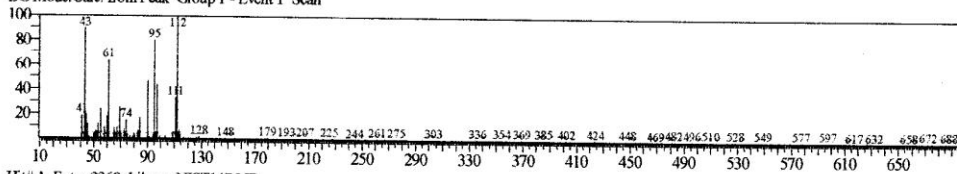


Hit#:1 Entry:2170 Library:NIST27.LIB  
SI:81 Formula:C4H8OS CAS:625-60-5 MolWeight:104 RetIndex:0  
CompName:S-Ethyl ethanethioate

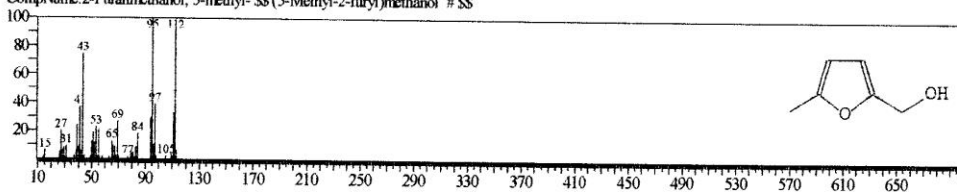


<< Target >>

Line#:13 R.Time:7.183(Scan#:263) MassPeaks:291  
RawMode:Averaged 7.175-7.192(262-264) BasePeak:112.00(4854)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

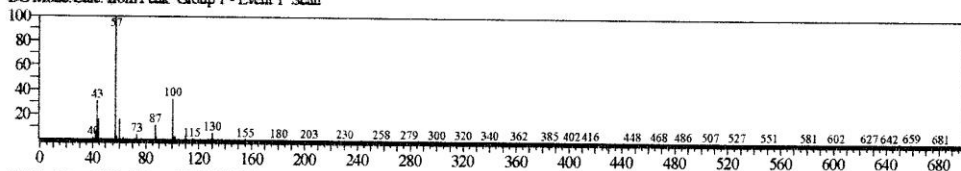


Hit#:1 Entry:3369 Library:NIST1471.LIB  
SI:78 Formula:C6H8O2 CAS:3857-25-8 MolWeight:112 RetIndex:0  
CompName:2-Furanmethanol, 5-methyl- SS (5-Methyl-2-furyl)methanol # SS

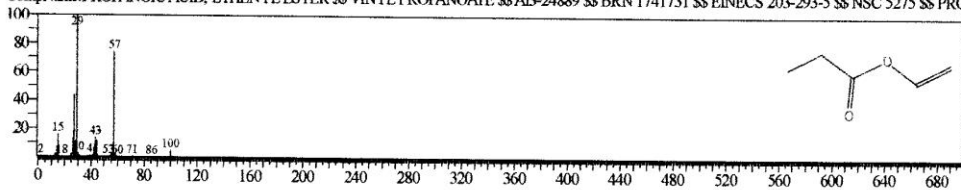


<< Target >>

Line#:14 R.Time:7.233(Scan#:269) MassPeaks:264  
RawMode:Averaged 7.225-7.242(268-270) BasePeak:57.00(10734)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

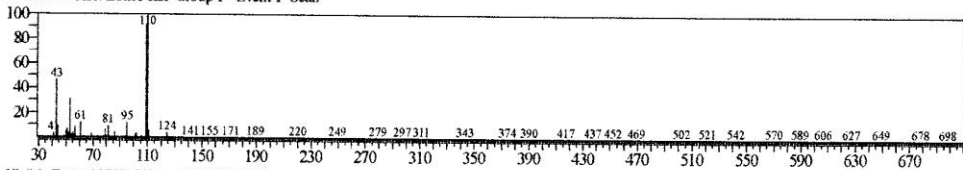


Hit#:1 Entry:7088 Library:Wf.F.YR.LIB  
SI:81 Formula:C5H8O2 CAS:105-38-4 MolWeight:100 RetIndex:0  
CompName:PROPANOIC ACID, ETHENYL ESTER SS VINYL PROPANOATE SS A13-24889 SS BRN 1741731 SS EINECS 203-293-5 SS NSC 5275 SS PRO

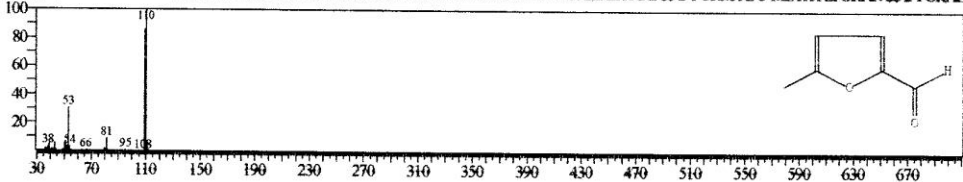


<< Target >>

Line#:15 R.Time:7.317(Scan#:279) MassPeaks:395  
RawMode:Averaged 7.308-7.325(278-280) BasePeak:110.00(22923)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

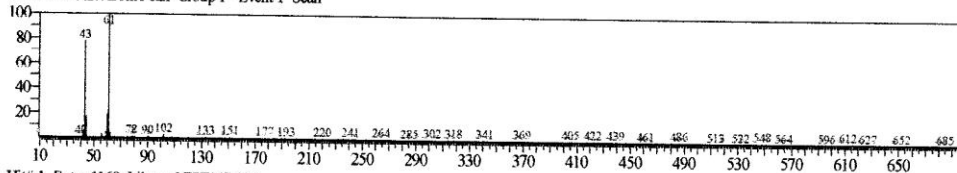


Hit#:1 Entry:10709 Library:WILEY8.LIB  
SI:88 Formula:C6H6O2 CAS:620-02-0 MolWeight:110 RetIndex:0  
CompName:2-FURAN CARBOXALDEHYDE, 5-METHYL- SS 5-METHYLFURAN-2-CARBALDEHYDE SS 2-FORMYL-5-METHYLFURAN SS 2-FURAL

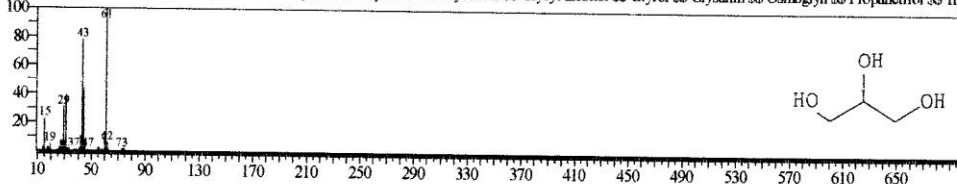


<<Target >>

Line#: 16 R.Time: 7.408(Scan#: 290) MassPeaks: 327  
RawMode: Averaged 7.400-7.417(289-291) BasePeak: 61.00(6821)  
BG Mode: Calc. from Peak Group 1 - Event 1 Scan

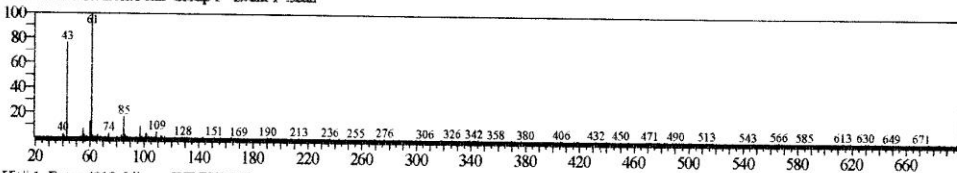


Hit#: 1 Entry: 1168 Library: NIST147.LIB  
SI: 88 Formula: C3H8O3 CAS: 56-81-5 MolWeight: 92 RetIndex: 0  
CompName: Glycerin SS 1,2,3-Propanetriol SS Glycerol SS Glycerine SS Glyceritol SS Glycol alcohol SS Glyrol SS Glycerin SS Osmoglyn SS Propanetriol SS Tri

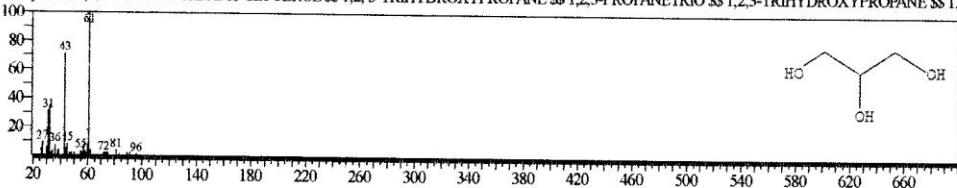


<<Target >>

Line#: 17 R.Time: 7.467(Scan#: 297) MassPeaks: 312  
RawMode: Averaged 7.458-7.475(296-298) BasePeak: 61.05(5438)  
BG Mode: Calc. from Peak Group 1 - Event 1 Scan

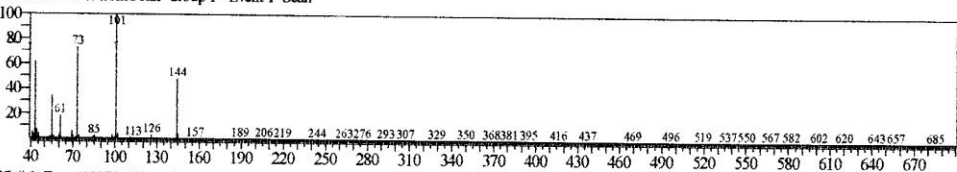


Hit#: 1 Entry: 4918 Library: WfI.FYR.I.R  
SI: 78 Formula: C3H8O3 CAS: 56-81-5 MolWeight: 92 RetIndex: 0  
CompName: 1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-PROPANETRIOL SS 1,2,3-TRIHIDROXYPROPANE SS 1,

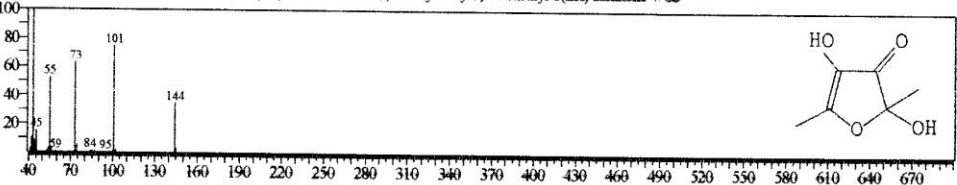


<<Target >>

Line#: 18 R.Time: 7.600(Scan#: 313) MassPeaks: 312  
RawMode: Averaged 7.592-7.608(312-314) BasePeak: 101.00(62519)  
BG Mode: Calc. from Peak Group 1 - Event 1 Scan

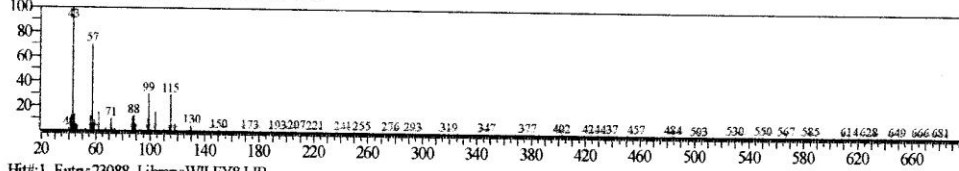


Hit#: 1 Entry: 12271 Library: NIST147.LIB  
SI: 86 Formula: C6H8O4 CAS: 10230-62-3 MolWeight: 144 RetIndex: 0  
CompName: 2,4-Dihydroxy-2,5-dimethyl-3(2H)-furan-3-one SS 2,4-Dihydroxy-2,5-dimethyl-3(2H)-furanone # SS

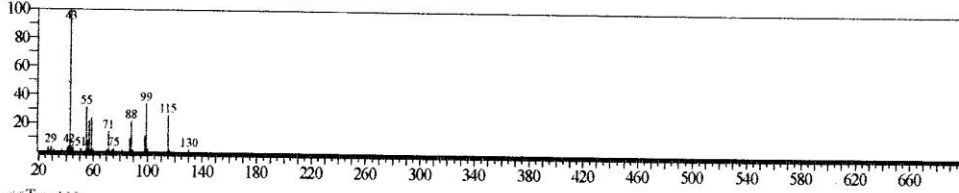


<<Target>>

Line#:19 R.Time:7.708(Scan#:326) MassPeaks:338  
RawMode:Averaged 7.700-7.717(325-327) BasePeak:43.00(4980)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

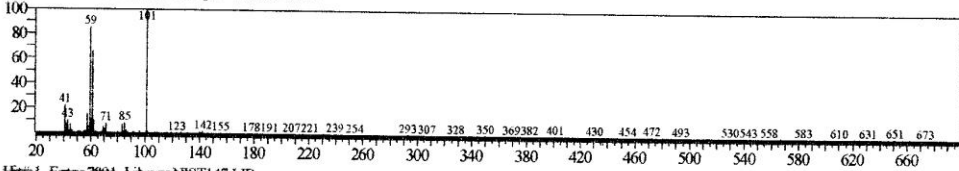


Hit#:1 Entry:23088 Library:WILFY8.LIB  
SI:78 Formula:C6H10O3 CAS:0-00-0 MolWeight:130 RetIndex:0  
CompName:METHYL 3-ACETYLPROPANOATE

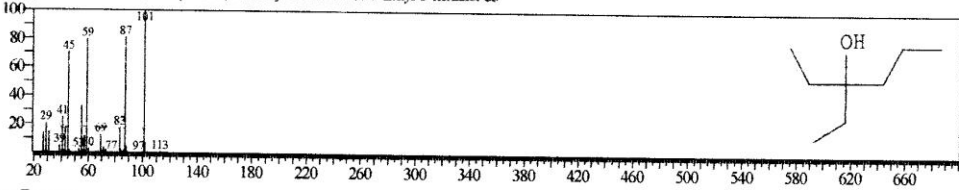


<<Target>>

Line#:20 R.Time:7.775(Scan#:334) MassPeaks:249  
RawMode:Averaged 7.767-7.783(333-335) BasePeak:101.05(9554)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

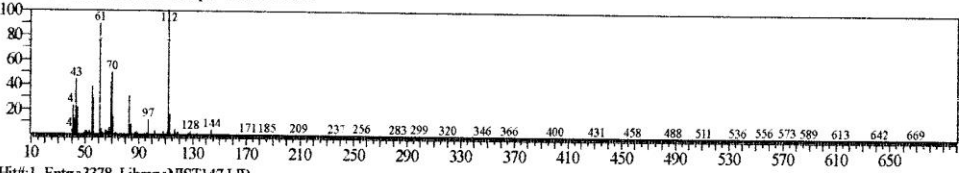


Hit#:1 Entry:7801 Library:NIST147.LIB  
SI:78 Formula:C8H18O CAS:597-76-2 MolWeight:130 RetIndex:0  
CompName:3-Hexanol, 3-ethyl-SS 1,1-Diethyl-1-butanol SS 3-Ethyl-3-hexanol SS

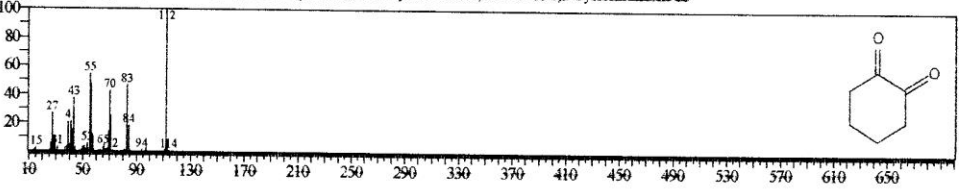


<<Target>>

Line#:21 R.Time:7.933(Scan#:353) MassPeaks:342  
RawMode:Averaged 7.925-7.942(352-354) BasePeak:112.05(10807)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

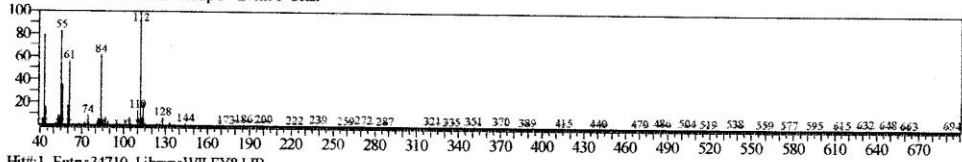


Hit#:1 Entry:3378 Library:NIST147.LIB  
SI:83 Formula:C6H8O2 CAS:765-87-7 MolWeight:112 RetIndex:0  
CompName:1,2-Cyclohexanedione SS 1,2-Dioxocyclohexane SS Cyclohexane-1,2-dione SS 1,2-Cyclohexadione SS

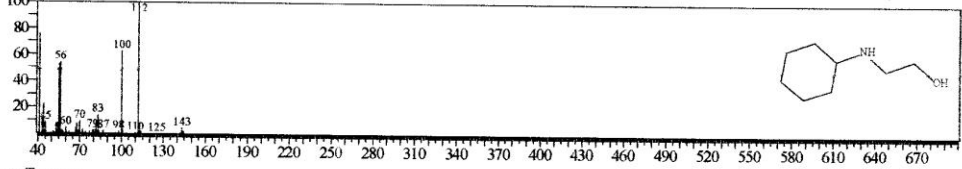


<< Target >>

Line#:22 R.Time:8.100(Scan#:373) MassPeaks:261  
RawMode:Averaged 8.092-8.108(372-374) BasePeak:112.00(8060)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

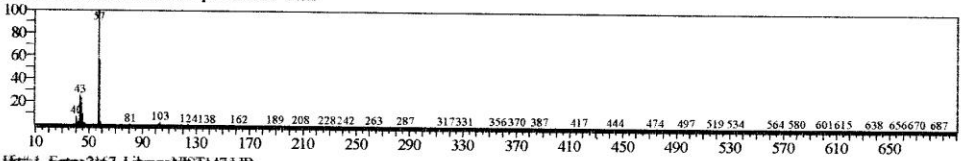


Hit#:1 Entry:34710 Library:WILFY8.LIB  
SI:73 Formula:C8H17NO CAS:2842-38-8 MolWeight:143 RetIndex:0  
CompName:ETHANOL, 2-(CYCLOHEXYLAMINO)- \$\$ 2-CYCLOHEXYLAMINOETHANOL \$\$ 2-(CYCLOHEXYLAMINO)ETHANOL \$\$ 2-(CYCLOHEXYLAMINO)ETHANOL

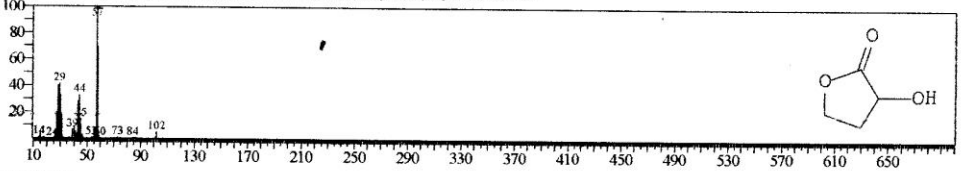


<< Target >>

Line#:23 R.Time:8.217(Scan#:387) MassPeaks:363  
RawMode:Averaged 8.208-8.225(386-388) BasePeak:57.00(118330)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

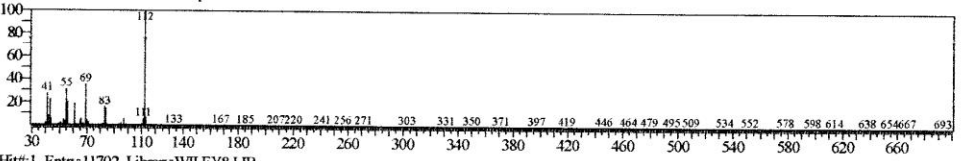


Hit#:1 Entry:2167 Library:NIST147.LIB  
SI:92 Formula:C4H6O3 CAS:19444-84-9 MolWeight:102 RetIndex:0  
CompName:2-Hydroxy-gamma-butyrolactone \$\$ 3-Hydroxydihydro-2(3H)-furanone # \$\$

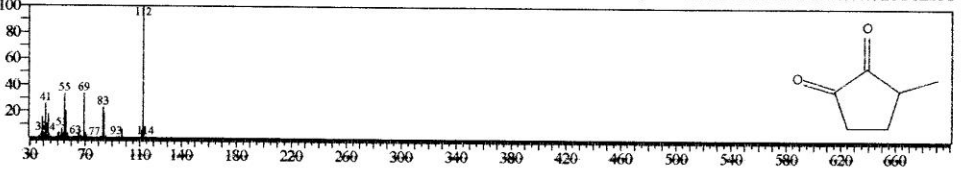


<< Target >>

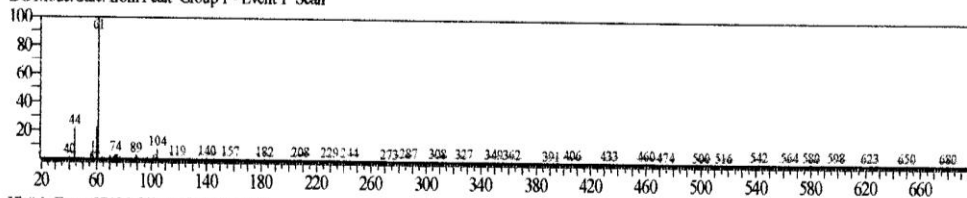
Line#:24 R.Time:8.475(Scan#:418) MassPeaks:288  
RawMode:Averaged 8.467-8.483(417-419) BasePeak:112.00(50003)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:11702 Library:WILEY8.LIB  
SI:94 Formula:C6H8O2 CAS:80-71-7 MolWeight:112 RetIndex:0  
CompName:2-CYCLOPENTEN-1-ONE, 2-HYDROXY-3-METHYL- \$\$ 3-METHYLCYCLOPENTANE-1,2-DIONE \$\$ 2-HYDROXY-1-METHYLCYCLOPENT-2-EN-1-ONE



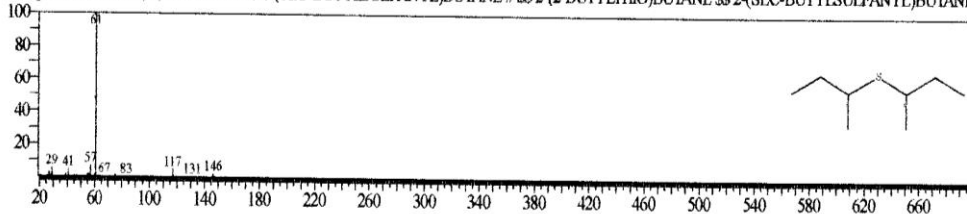
BG Mode: Calc. from Peak Group 1 - Event 1 Scan



Hit#: 1 Entry: 37486 Library: WJL.FYR.LIB

SI: 77 Formula: C8H18S CAS: 626-26-6 MolWeight: 146 RetIndex: 0

CompName: BUTANE, 2,2'-THIOBIS-(SEC-BUTYLSULFANYL)BUTANE # SS 2-(2-BUTYLTHIO)BUTANE SS 2-(SEC-BUTYLSULFANYL)BUTANE

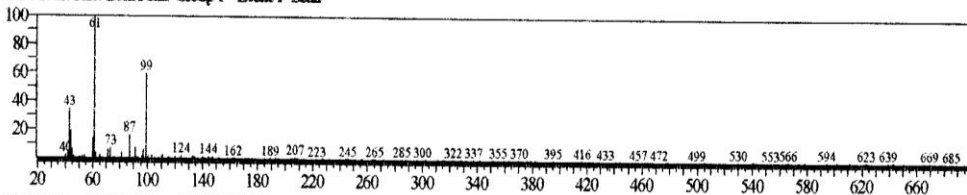


<< Target >>

Line#: 26 R.Time: 8.742(Scan#: 450) MassPeaks: 375

RawMode: Averaged 8.733-8.750(449-451) BasePeak: 61.05(6934)

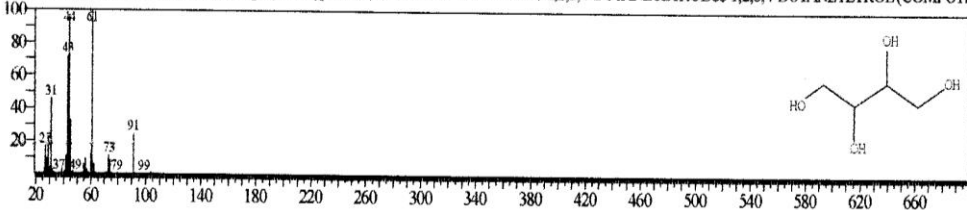
BG Mode: Calc. from Peak Group 1 - Event 1 Scan



Hit#: 1 Entry: 17269 Library: WJL.FYR.LIB

SI: 72 Formula: C4H10O4 CAS: 2319-57-5 MolWeight: 122 RetIndex: 0

CompName: 1,2,3,4-BUTANETETROL, [S-(R\*,R\*)]- SS 1,2,3,4-BUTANETETROL # SS 1,2,3,4-BUTANETETROL SS 1,2,3,4-BUTANETETROL (COMPUTE

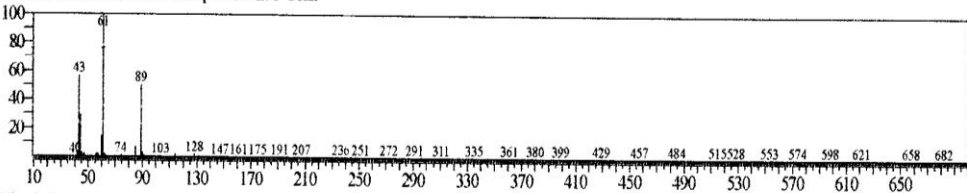


<< Target >>

Line#: 27 R.Time: 9.250(Scan#: 511) MassPeaks: 264

RawMode: Averaged 9.242-9.258(510-512) BasePeak: 61.05(226799)

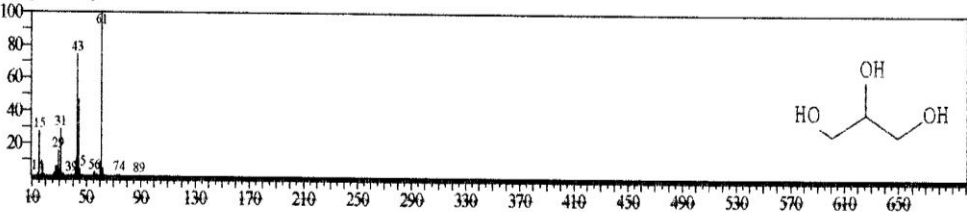
BG Mode: Calc. from Peak Group 1 - Event 1 Scan



Hit#: 1 Entry: 1208 Library: NIST127.LIB

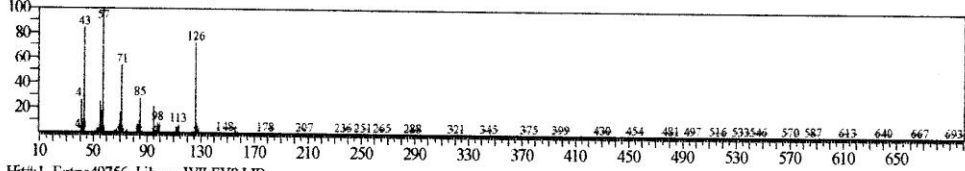
SI: 86 Formula: C3H8O3 CAS: 56-81-5 MolWeight: 92 RetIndex: 0

CompName: Glycerin

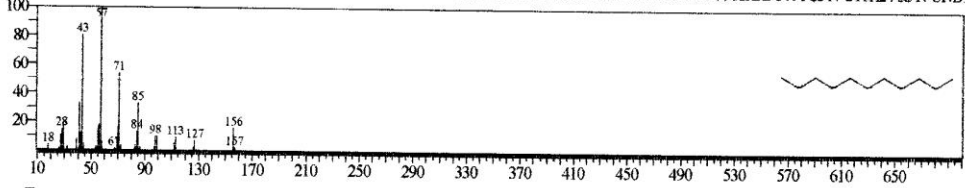


<<Target>>

Line#:28 R.Time:9.558(Scan#:548) MassPeaks:399  
RawMode:Averaged 9.550-9.567(547-549) BasePeak:57.05(62951)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

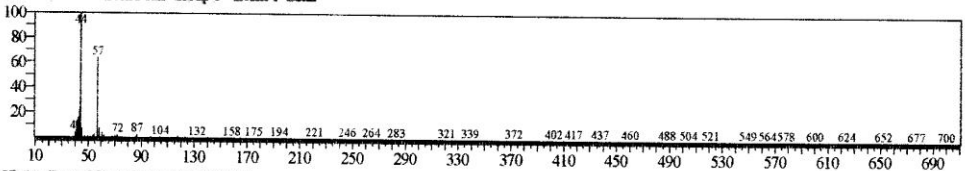


Hit#:1 Entry:49756 Library:WILEY8.LIB  
SI:90 Formula:C11H24 CAS:1120-21-4 MolWeight:156 RetIndex:0  
CompName:UNDECANE \$\$ A13-21126 \$\$ BRN 1697099 \$\$ CCRIS 3796 \$\$ EINECS 214-300-6 \$\$ HENDECANE \$\$ HSDB 5791 \$\$ N-C11H24 \$\$ N-UND

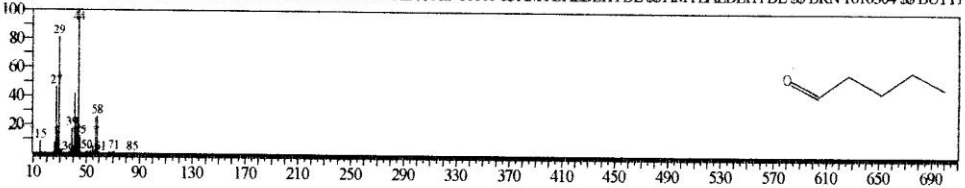


<<Target>>

Line#:29 R.Time:9.758(Scan#:572) MassPeaks:329  
RawMode:Averaged 9.750-9.767(571-573) BasePeak:44.00(34370)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

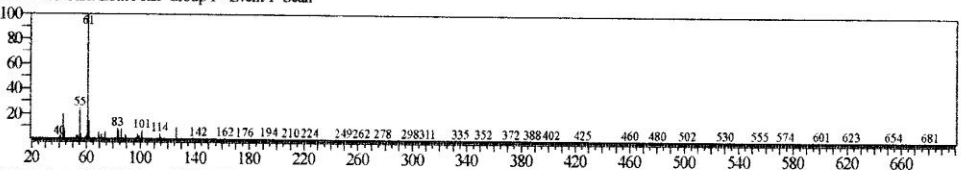


Hit#:1 Entry:3538 Library:WILEY8.LIB  
SI:86 Formula:C5H10O CAS:110-62-3 MolWeight:86 RetIndex:0  
CompName:PENTANAL \$\$ VALERALDEHYDE \$\$ 1-PENTANAL \$\$ A13-16105 \$\$ AMYLALDEHYDE \$\$ AMYLALDEHYDE \$\$ BRN 1616304 \$\$ BUTYL

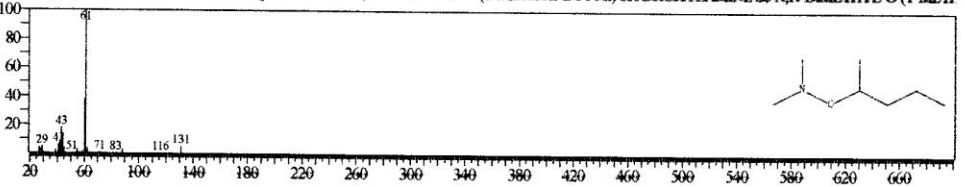


<<Target>>

Line#:30 R.Time:9.808(Scan#:578) MassPeaks:304  
RawMode:Averaged 9.800-9.817(577-579) BasePeak:61.05(14015)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

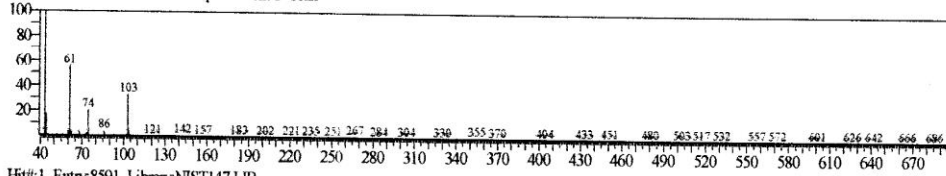


Hit#:1 Entry:24157 Library:WILEY8.LIB  
SI:71 Formula:C7H17NO CAS:0-00-0 MolWeight:131 RetIndex:0  
CompName:2-(DIMETHYLAMINO)OXYLPENTANE \$\$ N,N-DIMETHYL-O-(1-METHYL-BUTYL)-HYDROXYLAMINE \$\$ N,N-DIMETHYL-O-(1-METHYL



<< Target >>

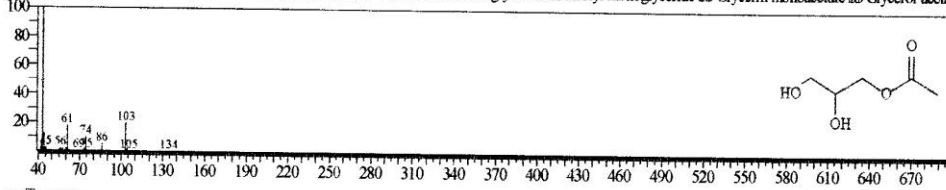
Line#:31 R.Time:10.092(Scan#:612) MassPeaks:262  
RawMode:Averaged 10.083-10.100(611-613) BasePeak:43.00(40873)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:8591 Library:NIST147.LIB

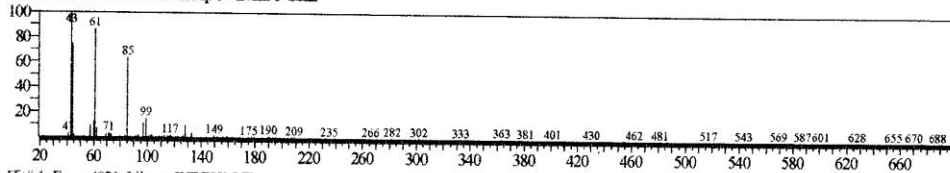
SI:87 Formula:C5H10O4 CAS:26446-35-5 MolWeight:134 RetIndex:0

CompName:1,2,3-Propanetriol, monoacetate SS Acetin, mono- SS Acetin SS Acetoglyceride SS Acetyl monoglyceride SS Glycerin monoacetate SS Glycerol acetat



<< Target >>

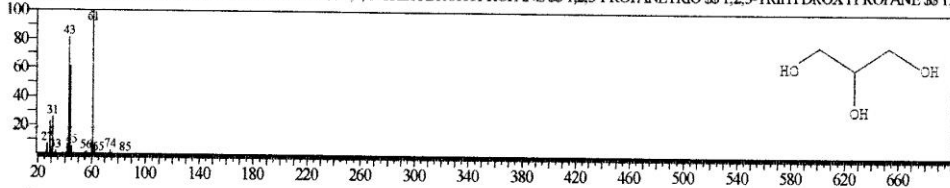
Line#:32 R.Time:10.150(Scan#:619) MassPeaks:302  
RawMode:Averaged 10.142-10.158(618-620) BasePeak:43.00(11764)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:4921 Library:WIFI.Y8.LIB

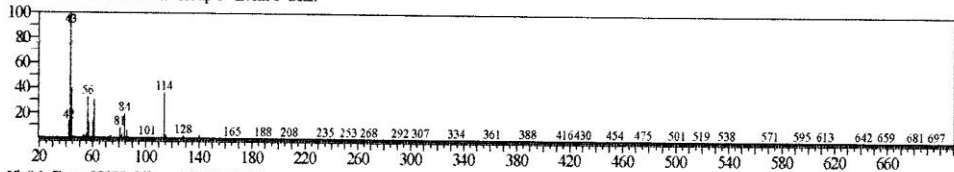
SI:79 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0

CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHIDROXYPROPANE SS 1,2,3-TRIHIDROXYPROPANE SS 1,



<< Target >>

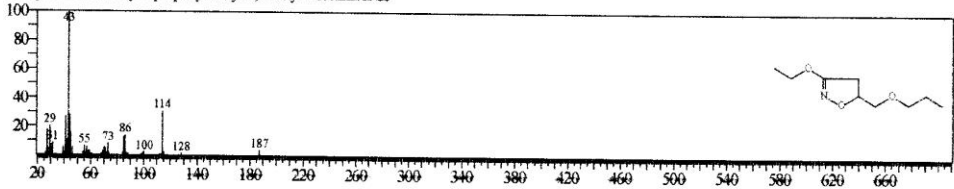
Line#:33 R.Time:10.242(Scan#:630) MassPeaks:325  
RawMode:Averaged 10.233-10.250(629-631) BasePeak:43.00(17660)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:32998 Library:NIST147.LIB

SI:79 Formula:C9H17NO3 CAS:0-00-0 MolWeight:187 RetIndex:0

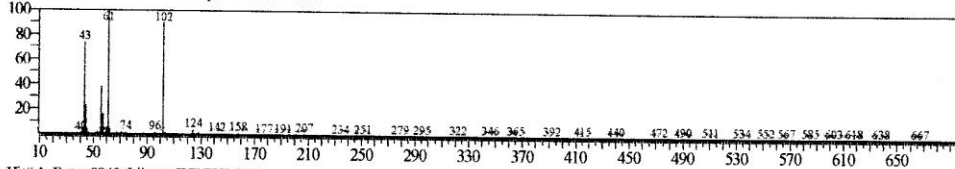
CompName:3-Ethoxy-5-propoxymethyl-4,5-dihydroisoxazole SS



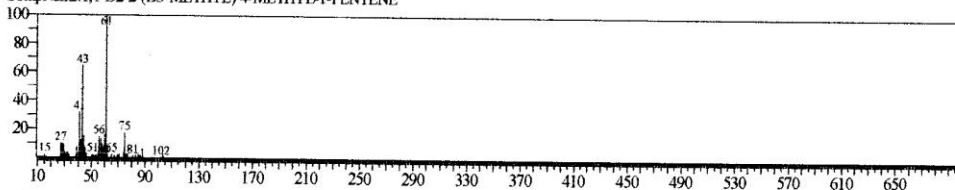


<<Target>>

Line#:34 R.Time:10.483(Scan#:659) MassPeaks:323  
RawMode:Averaged 10.475-10.492(658-660) BasePeak:61.05(33010)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

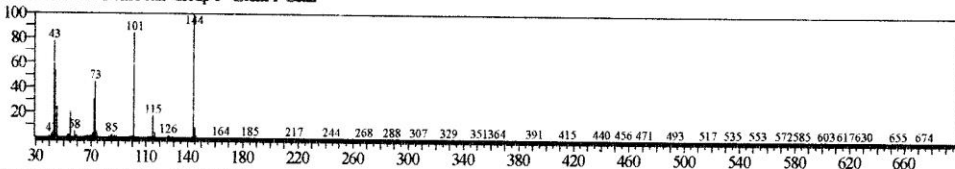


Hit#:1 Entry:8840 Library:WILEY8.LIB  
SE:78 Formula:C7H9D5 CAS:40316-94-7 MolWeight:103 RetIndex:0  
CompName:1,1-D2-2-(D3-METHYL)-4-METHYL-1-PENTENE

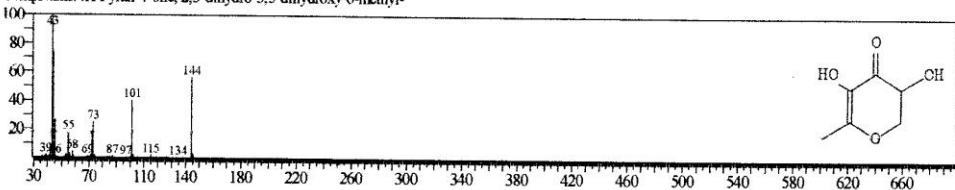


<<Target>>

Line#:35 R.Time:10.583(Scan#:671) MassPeaks:307  
RawMode:Averaged 10.575-10.592(670-672) BasePeak:144.00(245351)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

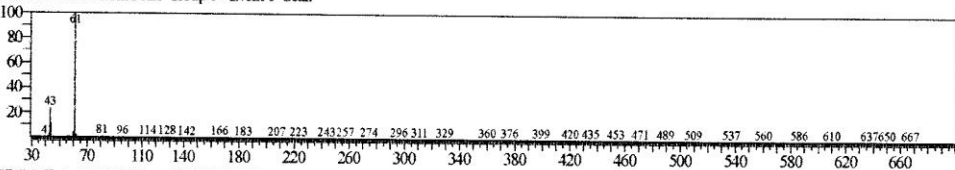


Hit#:1 Entry:7436 Library:NIST27.LIB  
SE:87 Formula:C6H8O4 CAS:28564-83-2 MolWeight:144 RetIndex:0  
CompName:4H-Pyran-4-one, 2,3-dihydro-3,5-dihydroxy-6-methyl-

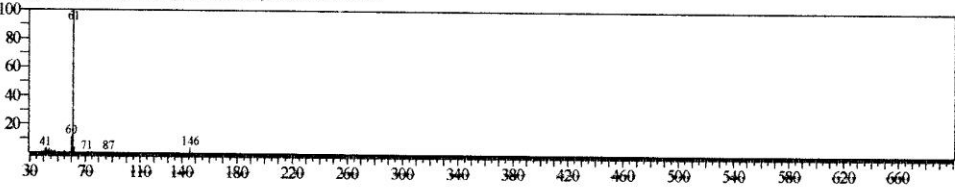


<<Target>>

Line#:36 R.Time:10.700(Scan#:685) MassPeaks:322  
RawMode:Averaged 10.692-10.708(684-686) BasePeak:61.05(68285)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

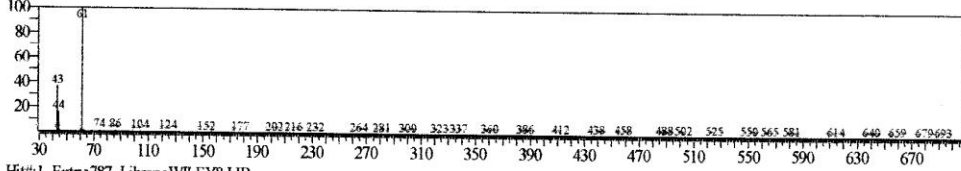


Hit#:1 Entry:37608 Library:WILEY8.LIB  
SE:86 Formula:C9H18D3N CAS:0-00-0 MolWeight:146 RetIndex:0  
CompName:N-METHYL-N-(METHYL-D3)AMINOHEPTANE

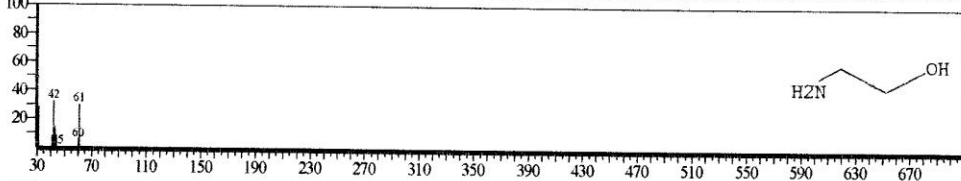


<<Target>>

Line#:37 R.Time:10.806(Scan#:698) MassPeaks:270  
RawMode:Averaged 10.800-10.817(697-699) BasePeak:61.05(58970)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

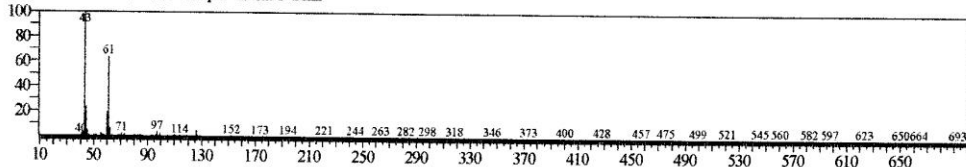


Hit#:1 Entry:787 Library:WILEY8.LIB  
SI:92 Formula:C2H7NO CAS:141-43-5 MolWeight:61 RetIndex:0  
CompName:ETHANOL, 2-AMINO- SS 2-AMINOETHANOL SS BETA-AMINOETHANOL SS BETA-AMINOETHYLALCOHOL SS BETA-ETHANOLAN

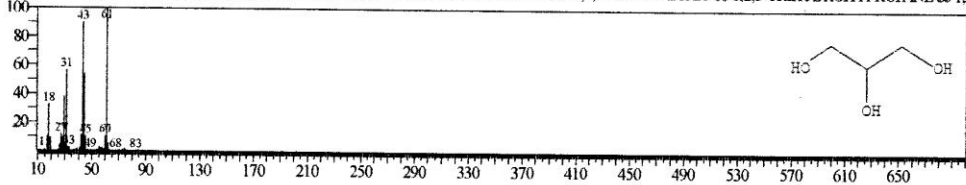


<<Target>>

Line#:38 R.Time:12.192(Scan#:864) MassPeaks:400  
RawMode:Averaged 12.183-12.200(863-865) BasePeak:43.00(40285)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

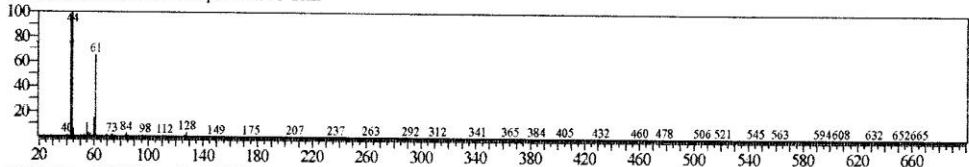


Hit#:1 Entry:4915 Library:WILEY8.LIB  
SI:86 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHYDROXYPROPANE SS 1,2,3-PROPANETRIO SS 1,2,3-TRIHYDROXYPROPANE SS 1,

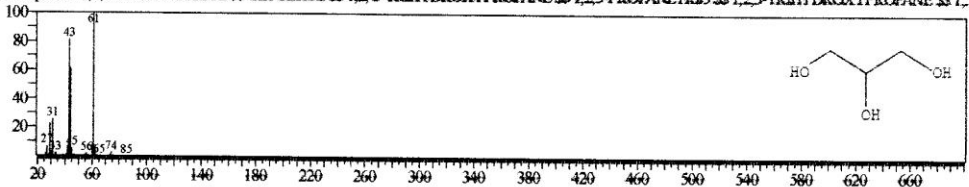


<<Target>>

Line#:39 R.Time:12.400(Scan#:889) MassPeaks:374  
RawMode:Averaged 12.392-12.408(888-890) BasePeak:44.00(14589)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

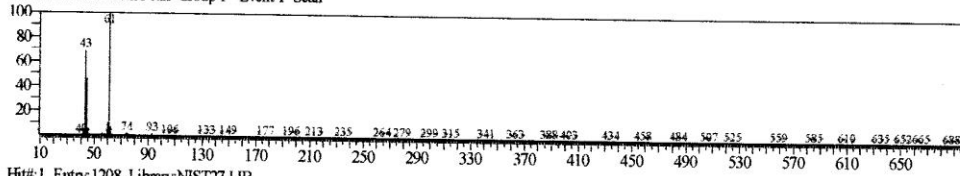


Hit#:1 Entry:4921 Library:WILEY8.LIB  
SI:85 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:1,2,3-PROPANETRIOL SS GLYCEROL SS 1,2,3-TRIHYDROXYPROPANE SS 1,2,3-PROPANETRIO SS 1,2,3-TRIHYDROXYPROPANE SS 1,

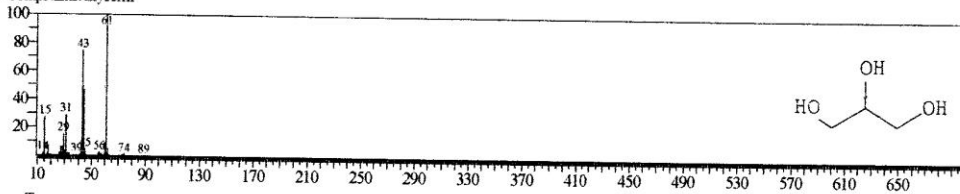


<< Target >>

Line#:40 R.Time:14.342(Scan#:1122) MassPeaks:436  
RawMode:Averaged 14.333-14.350(1121-1123) BasePeak:61.05(5944720)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

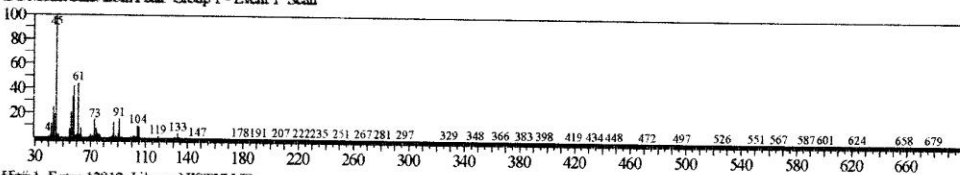


Hit#:1 Entry:1208 Library:NIST27.LIB  
SI:98 Formula:C3H8O3 CAS:56-81-5 MolWeight:92 RetIndex:0  
CompName:Glycerin

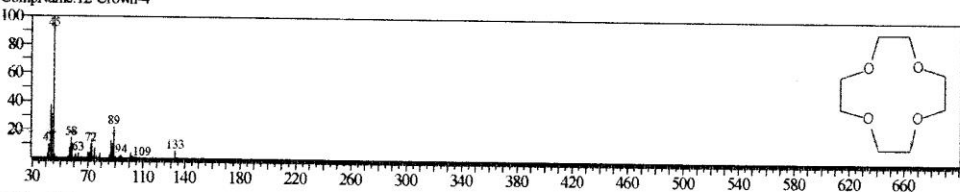


<< Target >>

Line#:41 R.Time:15.550(Scan#:1267) MassPeaks:377  
RawMode:Averaged 15.542-15.558(1266-1268) BasePeak:45.00(244551)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

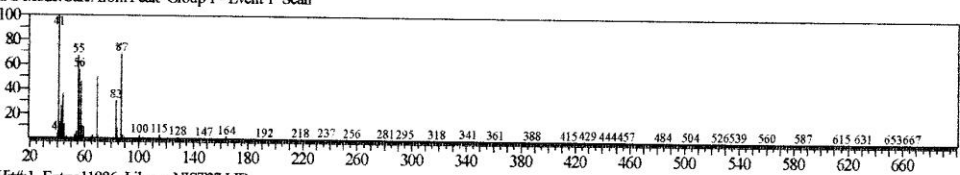


Hit#:1 Entry:12812 Library:NIST27.LIB  
SI:81 Formula:C8H16O4 CAS:294-93-9 MolWeight:176 RetIndex:0  
CompName:12-Crown-4

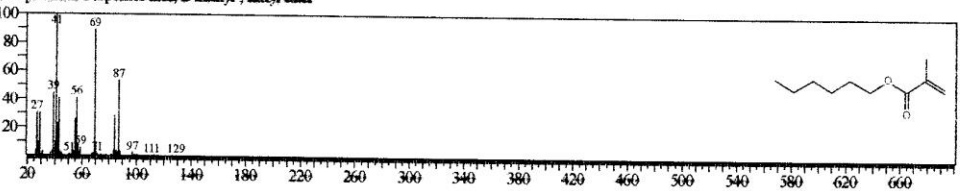


<< Target >>

Line#:42 R.Time:15.908(Scan#:1310) MassPeaks:323  
RawMode:Averaged 15.900-15.917(1309-1311) BasePeak:41.00(33387)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan

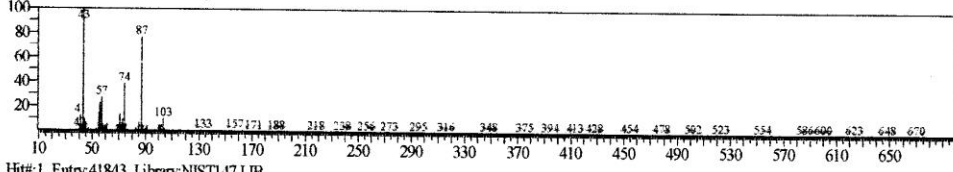


Hit#:1 Entry:11986 Library:NIST27.LIB  
SI:82 Formula:C10H18O2 CAS:142-09-6 MolWeight:170 RetIndex:0  
CompName:2-Propenoic acid, 2-methyl-, hexyl ester



<< Target >>

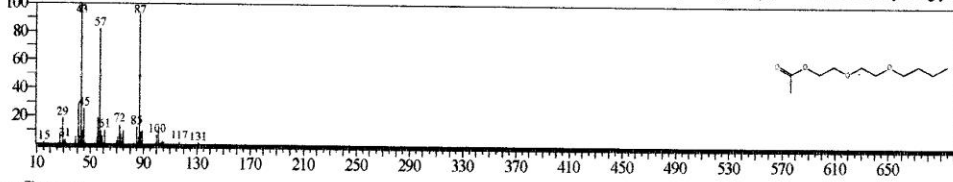
Line#:43 R.Time:16.417(Scan#:1371) MassPeaks:264  
RawMode:Averaged 16.408-16.425(1370-1372) BasePeak:43.00(302765)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:41843 Library:NIST147.LIB

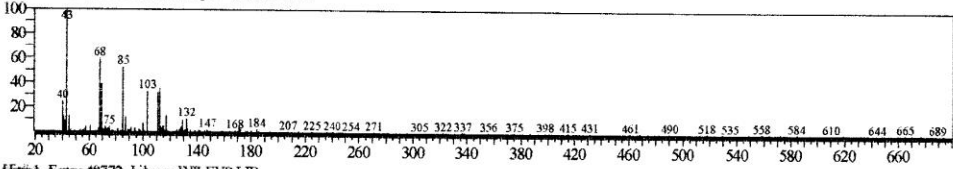
SI:85 Formula:C10H20O4 CAS:124-17-4 MolWeight:204 RetIndex:0

CompName:Ethanol, 2-(2-butoxyethoxy)-, acetate SS Butoxyethoxyethyl acetate SS Butyl carbitol acetate SS Butyl diethylene glycol acetate SS Diethylene glycol



<< Target >>

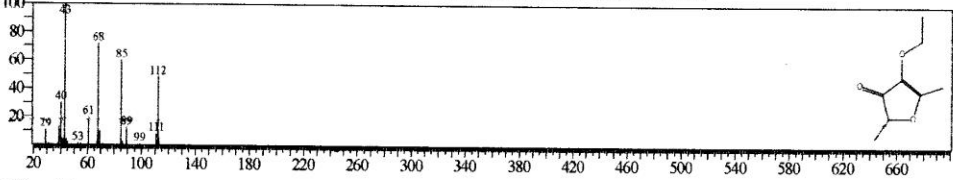
Line#:44 R.Time:17.100(Scan#:1453) MassPeaks:367  
RawMode:Averaged 17.092-17.108(1452-1454) BasePeak:43.00(8182)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:48772 Library:WILLY LIB

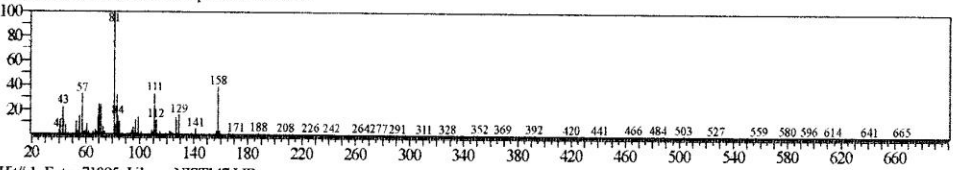
SI:75 Formula:C8H12O3 CAS:0-00-0 MolWeight:156 RetIndex:0

CompName:3(2H)-FURANONE, 4-ETHOXY-2,5-DIMETHYL- SS 4-ETHOXY-2,5-DIMETHYL-3(2H)-FURANONE



<< Target >>

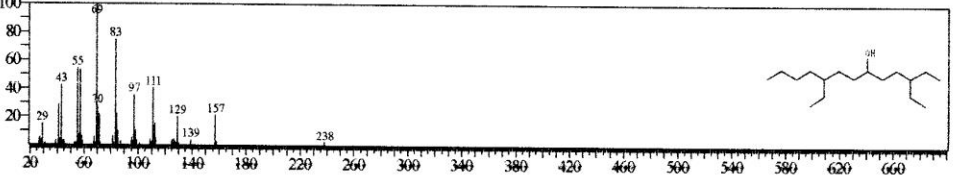
Line#:45 R.Time:17.475(Scan#:1498) MassPeaks:368  
RawMode:Averaged 17.467-17.483(1497-1499) BasePeak:81.00(9480)  
BG Mode:Calc. from Peak Group 1 - Event 1 Scan



Hit#:1 Entry:71095 Library:NIST147.LIB

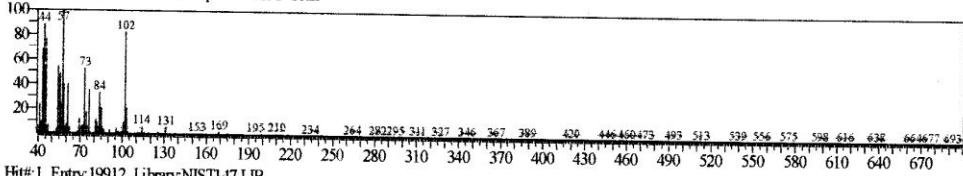
SI:73 Formula:C17H36O CAS:123-24-0 MolWeight:256 RetIndex:0

CompName:6-Tridecanol, 3,9-diehyl- SS 3,9-Diehyl-6-hydroxytridecane SS 3,9-Diehyl-6-tridecanol SS 3,9-Diehyltridecanol-6 SS

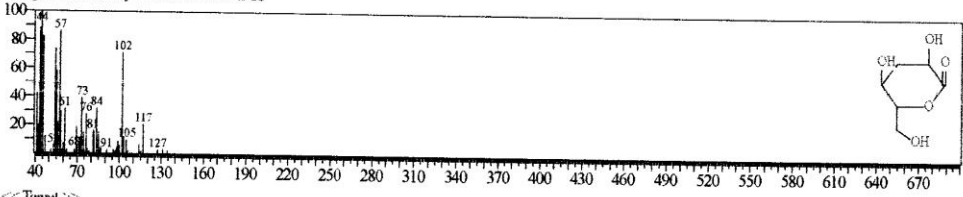


<< Target >>

Line#: 46 R. Time: 18.550 (Scan#: 1627) Mass Peaks: 382  
Raw Mode: Averaged 18.542-18.558 (1626-1628) Base Peak: 57.05 (126987)  
BG Mode: Calc. from Peak Group 1 - Event 1 Scan

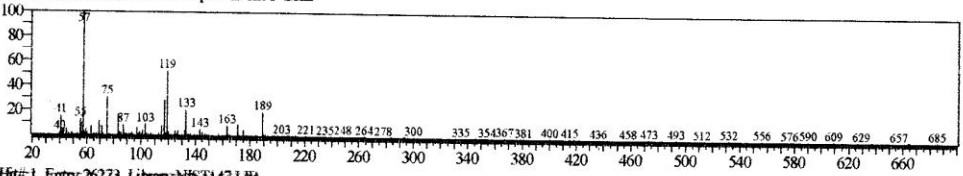


Hit#: 1 Entry: 19912 Library: NIST147.LIB  
SI: 91 Formula: C6H10O5 CAS: 0-00-0 Mol Weight: 162 Ret Index: 0  
Comp Name: 3-Deoxy-D-mannonic lactone SS

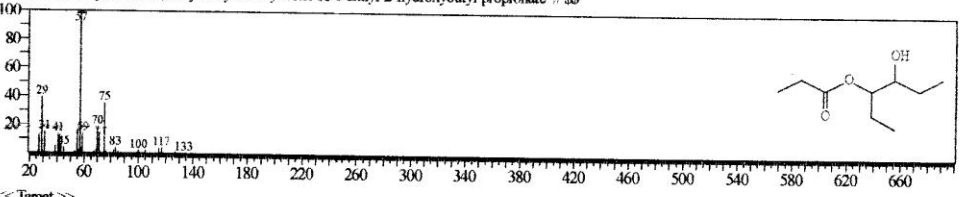


<< Target >>

Line#: 47 R. Time: 19.392 (Scan#: 1728) Mass Peaks: 391  
Raw Mode: Averaged 19.383-19.400 (1727-1729) Base Peak: 57.05 (11223)  
BG Mode: Calc. from Peak Group 1 - Event 1 Scan

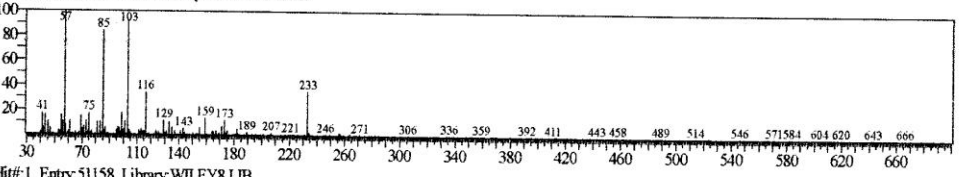


Hit#: 1 Entry: 26273 Library: NIST147.LIB  
SI: 66 Formula: C9H18O3 CAS: 0-00-0 Mol Weight: 174 Ret Index: 0  
Comp Name: Propionic acid, 4-hydroxy-3-hexyl ester SS 1-Ethyl-2-hydroxybutyl propionate # SS

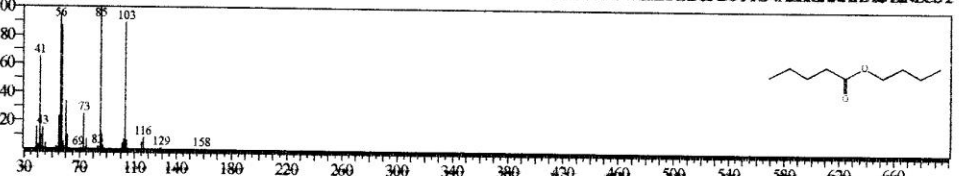


<< Target >>

Line#: 48 R. Time: 24.183 (Scan#: 2303) Mass Peaks: 393  
Raw Mode: Averaged 24.175-24.192 (2302-2304) Base Peak: 57.05 (4653)  
BG Mode: Calc. from Peak Group 1 - Event 1 Scan



Hit#: 1 Entry: 51158 Library: WILEY8.LIB  
SI: 71 Formula: C9H18O2 CAS: 591-68-4 Mol Weight: 158 Ret Index: 0  
Comp Name: PENTANOIC ACID, BUTYL ESTER SS BUTYL PENTANOATE SS A13-30051 SS BUTYL VALERATE SS BUTYL VALERIANATE SS EINECS 2



Tabel komponen volatil *edible film* tanpa aroma (EFNA) berdasarkan golongan

No	Nama Komponen	RTime	Luas Area (%)
<b>Sulfur alkana</b>			
1	BUTANE, 2,2'-THIOBIS-	5.049	0,03
2	BUTANE, 2,2'-THIOBIS-	8.675	0,05
<b>Alkohol</b>			
1	2-FURANMETHANOL	5.510	0,10
2	Glycerin	7.408	0,11
3	1,2,3-PROPANETRIOL	7.467	0,10
4	3-Hexanol, 3-ethyl-	7.775	0,22
5	1,2,3,4-BUTANETETROL, [S-(R*,R*)]-	8.742	0,10
6	Glycerin	9.251	2,01
7	1,2,3-PROPANETRIOL	10.150	0,46
8	1,2,3-PROPANETRIOL	12.192	18,90
9	1,2,3-PROPANETRIOL	12.400	3,73
10	Glycerin	14.339	57,30
11	6-Tridecanol, 3,9-diethyl-	17.475	0,01
<b>Keton</b>			
1	4-CYCLOPENTENE-1,3-DIONE #	5.971	0,13
2	1,2-Cyclopentanedione	6.709	0,51
3	1,2-Cyclohexanedione	7.930	0,34
4	2-CYCLOPENTEN-1-ONE, 2-HYDROXY-3-METHYL-	8.472	0,37
<b>Eter</b>			
1	1,4-DIOXANE, 2,3-DIMETHOXY-	6.192	0,07
2	N,N-Dimethyl-O-(1-methyl-butyl)-hydroxylamine	6.908	0,14
3	N,N-Dimethyl-O-(1-methyl-butyl)-hydroxylamine	7.033	0,26
4	3-Ethoxy-5-propoxymethyl-4,5-dihydroisoxazole	10.243	0,47
5	12-Crown-4	15.547	0,30
<b>Ester</b>			
1	2-Propenoic acid, 4-methylpentyl ester	6.499	0,27
2	PROPANOIC ACID, ETHENYL ESTER	7.232	0,10
3	METHYL 3-ACETYLPROPANOATE2,4-	7.708	0,13
4	2-Propenoic acid, 2-methyl-, hexyl ester	15.909	0,08
5	PENTANOIC ACID, BUTYL ESTER	24.180	0,02
<b>Asam karboksilat</b>			
1	BUTYRIC ACID-2-D1	6.250	0,02
<b>Aldehid</b>			
1	PENTANAL	9.757	0,67

No	Nama Komponen	RTime	Luas Area (%)
<b>Amina</b>			
1	2-[(DIMETHYLAMINO)OXY]PENTANE	9.808	0,30
2	N-METHYL-N-(METHYL-D3)AMINOHEPTANE	10.699	0,44
<b>Keton ester</b>			
1	2-Propanone, 1-(acetyloxy)-	5.635	0,14
<b>Alkohol ester</b>			
1	1,2,3-Propanetriol, monoacetate	6.048	0,05
2	2-Hydroxy-gamma-butyrolactone	8.218	0,67
3	1,2,3-Propanetriol, monoacetate	10.092	1,45
4	Propionic acid, 4-hydroxy-3-hexyl ester	19.390	0,36
<b>Sulfur eter</b>			
1	S-Ethyl ethanethioate	7.125	0.13
<b>Alkana</b>			
1	UNDECANE	9.560	0,98
2	1,1-D2-2-(D3-METHYL)-4-METHYL-1-PENTENE	10.483	1,68
<b>Eter alkohol</b>			
1	2-Furanmethanol, 5-methyl-	7.183	0,12
<b>Alkohol amina</b>			
1	ETHANOL, 2-(CYCLOHEXYLAMINO)-	8.100	0,32
2	ETHANOL, 2-AMINO-	10.811	1,03
<b>Eter aldehid</b>			
1	2-FURANCARBOXALDEHYDE, 5-METHYL-	7.314	0,24
<b>Keton hidroksil</b>			
1	4H-Pyran-4-one, 2,3-dihydro-3,5-dihydroxy-6-methyl-	10.588	1,52
<b>Eter ester</b>			
1	Ethanol, 2-(2-butoxyethoxy)-, acetate	16.418	0,96
<b>Keton eter</b>			
1	3(2H)-FURANONE, 4-ETHOXY-2,5-DIMETHYL-	17.098	0,01
<b>Alkohol keton eter</b>			
1	3-Deoxy-d-mannonic lactone	18.554	2,19
2	2,4-Dihydroxy-2,5-dimethyl-3(2H)-furan-3-one	7.600	0,41

Lampiran 16. Hasil uji organoleptik gel distribusi spasial lemak tersalut biopolimer lapis tipis

Perlakuan	Panelis	Kekerasan	Warna	Kekenyalan	Aroma
Gel Homogen 2 (GHM2) Tersalut <i>Edible film</i> beraroma (EFA)	1	7	8	7	8
	2	6	8	8	8
	3	7	8	7	7
	4	7	9	7	8
	5	8	7	7	8
	6	6	7	8	7
	7	8	8	7	8
	8	8	8	7	9
	9	7	8	7	7
	10	7	8	7	8
Gel Homogen 2 (GHM2) Tersalut <i>Edible film</i> Tanpa Teraromatis (EFNA)	1	7	7	7	5
	2	7	8	8	7
	3	8	9	7	4
	4	7	7	7	5
	5	8	8	7	6
	6	7	7	8	5
	7	7	8	7	5
	8	7	7	6	7
	9	7	8	7	6
	10	7	9	7	5

Uji T test

**Group Statistics**

	Biopolimer Lapis Tipis	N	Mean	Std. Deviation	Std. Error Mean
Kekerasan	GHM2EFA	10	7.1000	.73786	.23333
	GHM2EFNA	10	7.2000	.42164	.13333



### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Differen ce	Std. Error Differen ce	95% Confidence Interval of the Difference Lower Upper	
Kekerasan	Equal variances assumed	1.702	.209	-.372	18	.714	-.10000	.26874	-.66461	.46461
	Equal variances not assumed			-.372	14.311	.715	-.10000	.26874	-.67522	.47522

### Uji T test

#### Group Statistics

	Biopolimer Lapis Tipis	N	Mean	Std. Deviation	Std. Error Mean
Warna	GHM2EFA	10	7.9000	.56765	.17951
	GHM2EFNA	10	7.8000	.78881	.24944

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Differen ce	Std. Error Differen ce	95% Confidence Interval of the Difference Lower Upper	
Warna	Equal variances assumed	2.270	.149	.325	18	.749	.10000	.30732	-.54565	.74565
	Equal variances not assumed			.325	16.350	.749	.10000	.30732	-.55035	.75035

### Uji T test

#### Group Statistics

	Biopolimer Lapis Tipis	N	Mean	Std. Deviation	Std. Error Mean
Kekenyalan	GHM2EFA	10	7.2000	.42164	.13333
	GHM2EFNA	10	7.2000	.42164	.13333

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Kekenyalan	Equal variances assumed	.000	1.000	.000	18	1.000	.000000	.18856	-.39615	.39615
	Equal variances not assumed			.000	18.000	1.000	.000000	.18856	-.39615	.39615

### Uji T test

#### Group Statistics

	Biopolimer Lapis Tipis	N	Mean	Std. Deviation	Std. Error Mean
Aroma	GHM2EFA	10	7.8000	.63246	.20000
	GHM2EFNA	10	5.5000	.97183	.30732

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Aroma	Equal variances assumed	2.714	.117	6.273	18	.000	2.30000	.36667	1.52966	3.07034
	Equal variances not assumed			6.273	15.464	.000	2.30000	.36667	1.52051	3.07949

Lampiran 17. Perbandingan uji organoleptik gel distribusi spasial lemak dan gel distribusi spasial lemak tersalut biopolimer lapis tipis, ANOVA, dan uji lanjut.

### Between-Subjects Factors

	Value Label	N	
Gel Distribusi Spasial Lemak	1.00	GHM2	10
	2.00	GHM2EFA	10
	3.00	GHM2EFNA	10

### Tests of Between-Subjects Effects

Dependent Variable: Kekerasan

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.467 <sup>a</sup>	2	.233	.708	.502
Intercept	1569.633	1	1569.633	4761.809	.000
Perlakuan	.467	2	.233	.708	.502
Error	8.900	27	.330		
Total	1579.000	30			
Corrected Total	9.367	29			

a. R Squared = .050 (Adjusted R Squared = -.021)

### Kekerasan

Duncan<sup>a,b</sup>

Gel Distribusi Spasial Lemak	N	Subset
		1
GHM2EFA	10	7.1000
GHM2EFNA	10	7.2000
GHM2	10	7.4000
Sig.		.280

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .330.

a. Uses Harmonic Mean Sample Size = 10.000.

b. Alpha = 0.05.

### Tests of Between-Subjects Effects

Dependent Variable: Kekenyalan

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8.882E-16 <sup>a</sup>	2	4.441E-16	.000	1.000
Intercept	1555.200	1	1555.200	8748.000	.000
Perlakuan	.000	2	.000	.000	1.000
Error	4.800	27	.178		
Total	1560.000	30			
Corrected Total	4.800	29			

a. R Squared = .000 (Adjusted R Squared = -.074)

### Kekenyalan

Duncan<sup>a,b</sup>

Gel Distribusi Spasial Lemak	N	Subset
		1
GHM2	10	7.2000
GHM2EFA	10	7.2000
GHM2EFNA	10	7.2000
Sig.		1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .178.

a. Uses Harmonic Mean Sample Size = 10.000.

b. Alpha = 0.05.