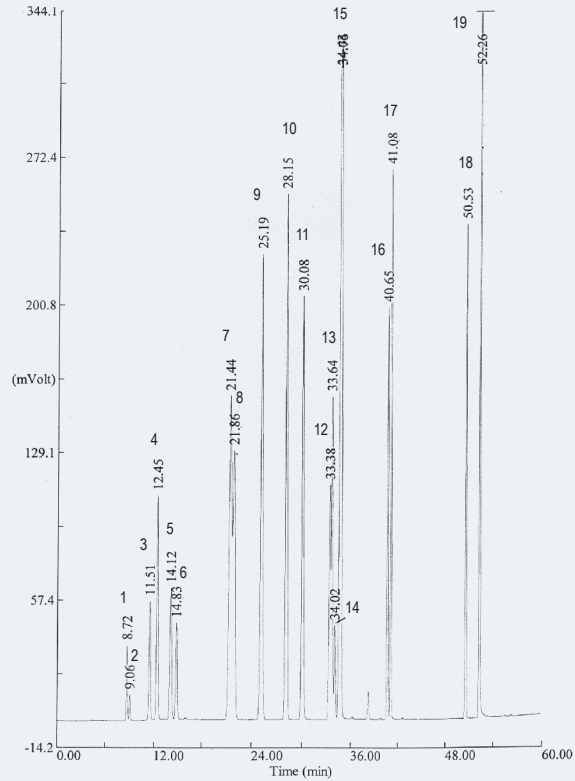


**ANALYSIS OF SOLVENTS**

Column: **TRB-WAX**, P/N TR-142065  
 Dimensions: 60m x 0.53mm x 2.0 µm  
 Injection: wet needle, split, 250°C  
 Carrier gas: H<sub>2</sub>, constant pressure 4 psi (27.6 KPa).  
 Oven program: 55°C(20min) @ 3°C/min to 220°C(15min)  
 Detector: FID, 260°C

Peak Name

- 1- Acetone
- 2- Methyl acetate
- 3- Ethyl acetate
- 4- Methanol + MEK
- 5- Isopropanol
- 6- Ethanol
- 7- MKB
- 8- Methoxypropyl acetate
- 9- Isobutyl acetate
- 10- Toluene
- 11- Methoxypropanol
- 12- n-butyl acetate
- 13- Isobutanol
- 14- n-butanol
- 15- p,m-xylenes
- 16- o-xylene
- 17- Ethylglycol
- 18- Diacetone alcohol
- 19- Butyl glycol



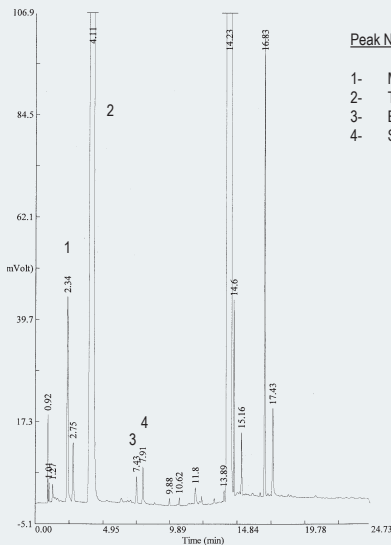
TKG 1003

**SEPARATION OF MONOMERS IN PAINTS**

Column: **Meta .WAX**, P/N TR-811035  
 Dimensions: 30m x 0.53mm x 1.0 µm  
 Injection: 1 µL Monomers mixture (20ppm, 100ppm toluene in DMSO), split 1:50, 240°C  
 Carrier gas: He, 4 psi (27.6 KPa)  
 Oven temperature: 40°C(5min) @ 15°C/min to 180°C(15min)  
 Detector: FID, 240°C

Peak Name

- 1- Methyl acrylate
- 2- Toluene
- 3- Butyl acrylate
- 4- Styrene



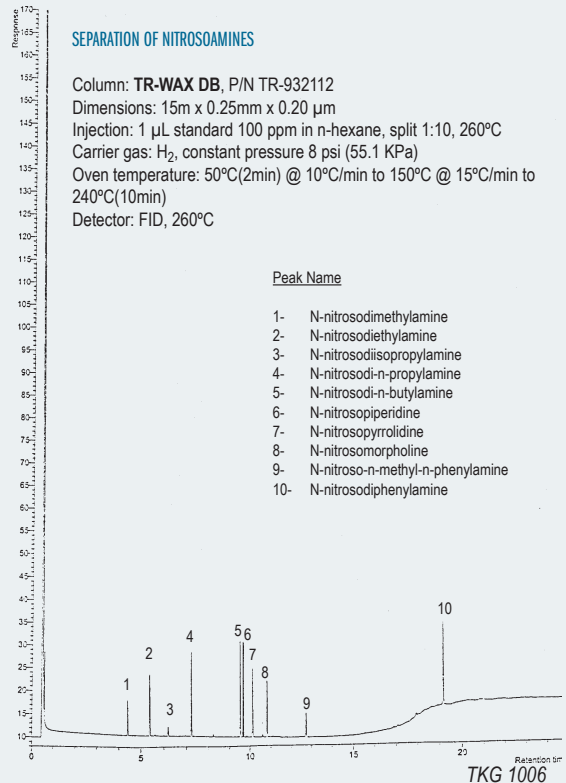
TKG 1005

**SEPARATION OF NITROAMINES**

Column: **TR-WAX DB**, P/N TR-932112  
 Dimensions: 15m x 0.25mm x 0.20 µm  
 Injection: 1 µL standard 100 ppm in n-hexane, split 1:10, 260°C  
 Carrier gas: H<sub>2</sub>, constant pressure 8 psi (55.1 KPa)  
 Oven temperature: 50°C(2min) @ 10°C/min to 150°C @ 15°C/min to 240°C(10min)  
 Detector: FID, 260°C

Peak Name

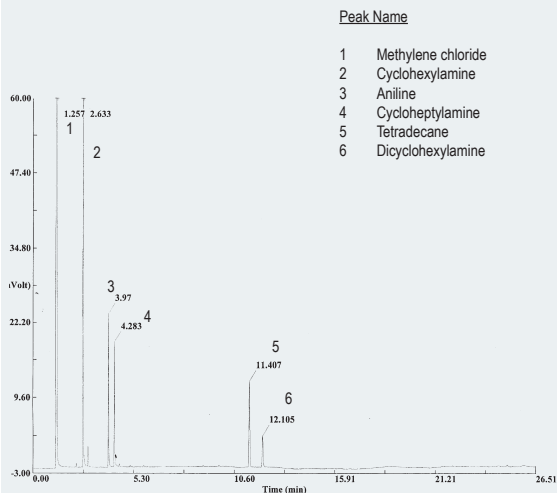
- 1- N-nitrosodimethylamine
- 2- N-nitrosodiethylamine
- 3- N-nitrosodisopropylamine
- 4- N-nitrosodi-n-propylamine
- 5- N-nitrosodi-n-butylamine
- 6- N-nitrosopiperidine
- 7- N-nitrosopyrrolidine
- 8- N-nitrosomorpholine
- 9- N-nitroso-n-methyl-n-phenylamine
- 10- N-nitrosodiphenylamine



TKG 1006

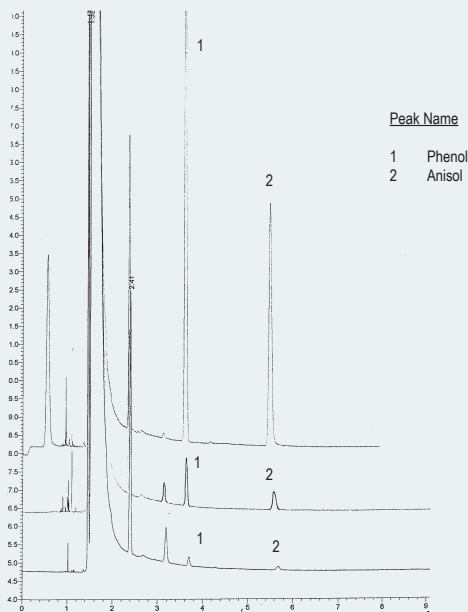
## SODIUM CYCLAMATE IMPURITIES

Column: **TRB-5A**, P/N TR-210533  
 Dimensions: 30m x 0.32mm x 0.5 µm  
 Injection: 1 µL (50-500 ppm), split 1:15, 280°C  
 Carrier gas: He, constant pressure 17 psi (117.1 KPa)  
 Oven program: 85°C (1 min) @ 8°C/min to 150°C (10min)  
 @ 30°C/min to 220°C (5min)  
 Detector: FID, 280°C

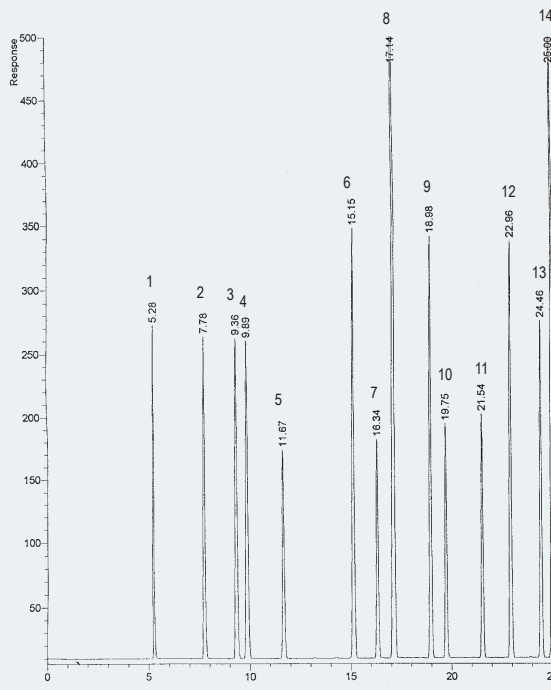


TKG 1007

Column: **TRB-624**, P/N TR-603035  
 Dimensions: 30m x 0.53mm x 3.0 µm  
 Injection: 1 µl (0,5,5 and 50ppm), split 1:5, 260°C  
 Carrier gas: He, constant pressure 5 psi (34.5 KPa).  
 Oven temperature: 150°C (isothermal)  
 Detector: FID, 280°C



TKG 1008



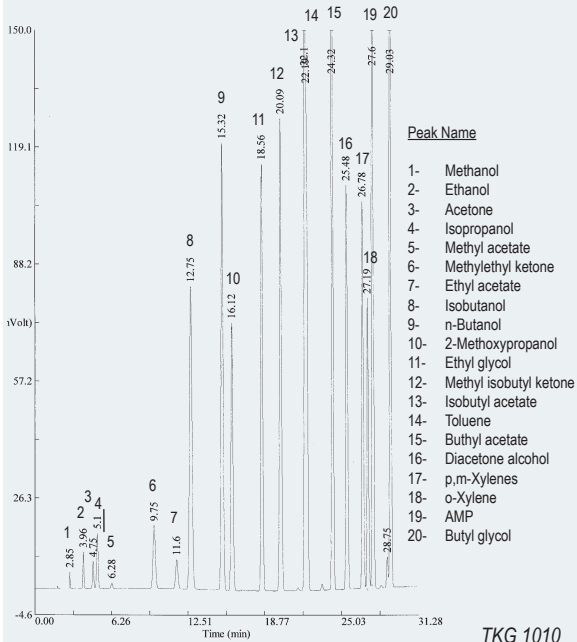
## SEPARATION OF SOLVENTS

Column: **TRB-1**, P/N TR-115063  
 Dimensions: 60m x 0.32mm x 5.0 µm  
 Injection: wet needle (solvent mixture), split 1:100, 280°C  
 Carrier gas: He, constant pressure 14 psi (96.5 KPa).  
 Oven program: 45°C (7min) @ 6°C/min to 260°C (5min)  
 Detector: FID, 300°C

Peak Name	Retention Time (min)
1- Methanol	5.28
2- Ethanol	7.75
3- Acetone	8.85
4- Isopropanol	8.85
5- Methyl acetate	11.67
6- Methyleneethyl ketone	15.15
7- Ethyl acetate	16.34
8- n-Butanol	17.14
9- Isobutanol	18.88
10- 2-Methoxypropanol	19.75
11- Ethyleneglycol	21.54
12- Methyl isobutyl ketone	22.96
13- Isobutyl acetate	24.45
14- Toluene	26.00
15- Butyl acetate	26.17
16- Diketone alcohol	27.39
17- 2-Methoxypropanol acetate	28.11
18- Xylene	29.60
19- Butyl glycol	30.36
20- Butyl glycol acetate	36.46

TKG 1009

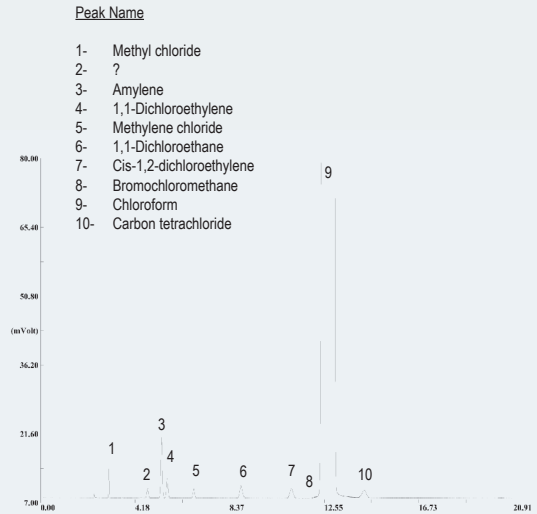
Column: **TRB-1**, P/N TR-115065  
 Dimensions: 60m x 0.53mm x 5.0 µm  
 Injection: 0,1 µl solvent mix, split, 250°C  
 Carrier gas: H<sub>2</sub>, constant pressure 6.5 psi (45 KPa).  
 Oven program: 40°C (10min) @ 5°C/min to 200°C(15min)  
 Detector: FID, 280°C



TKG 1010

**CHLOROFORM IMPURITIES**

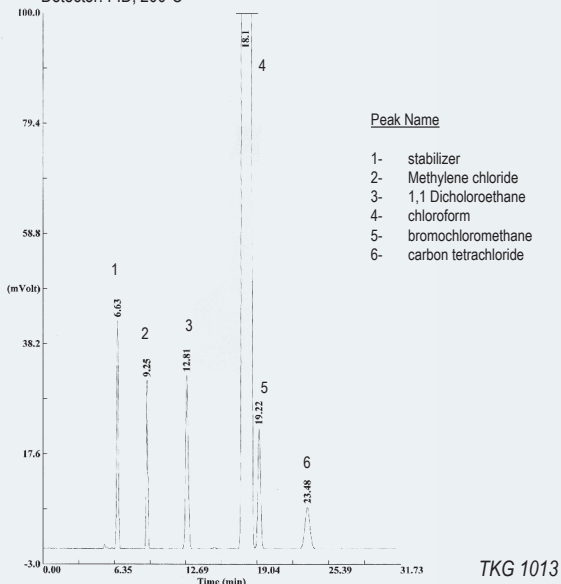
Column: **TRB-624**, P/N TR-603035  
 Dimensions: 30m x 0.53mm x 3.0 µm  
 Injection: 1 µl split 1:6, 260°C,  
 Liner: single tape with wool  
 Carrier Gas: He, 3psi (20.7 KPa), 21.9cm/s (40°C)  
 Program temperature: 40°C  
 Detector: FID, 200°C



TKG 1012

**CHLOROFORM IMPURITIES**

Column: **Meta.VOC**, P/N TR-943035  
 Dimensions: 30m x 0.53mm x 3.0 µm  
 Injection: 1 µl chloroform , split, 5:1, 150°C  
 Carrier gas: He, constant pressure 2 psi (13.8 KPa), 19.53 cm/s (30°C)  
 Oven program: 30°C (isothermal)  
 Detector: FID, 200°C

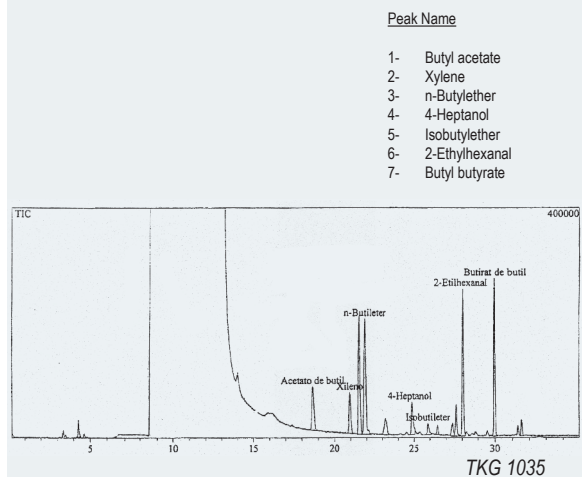


TKG 1013

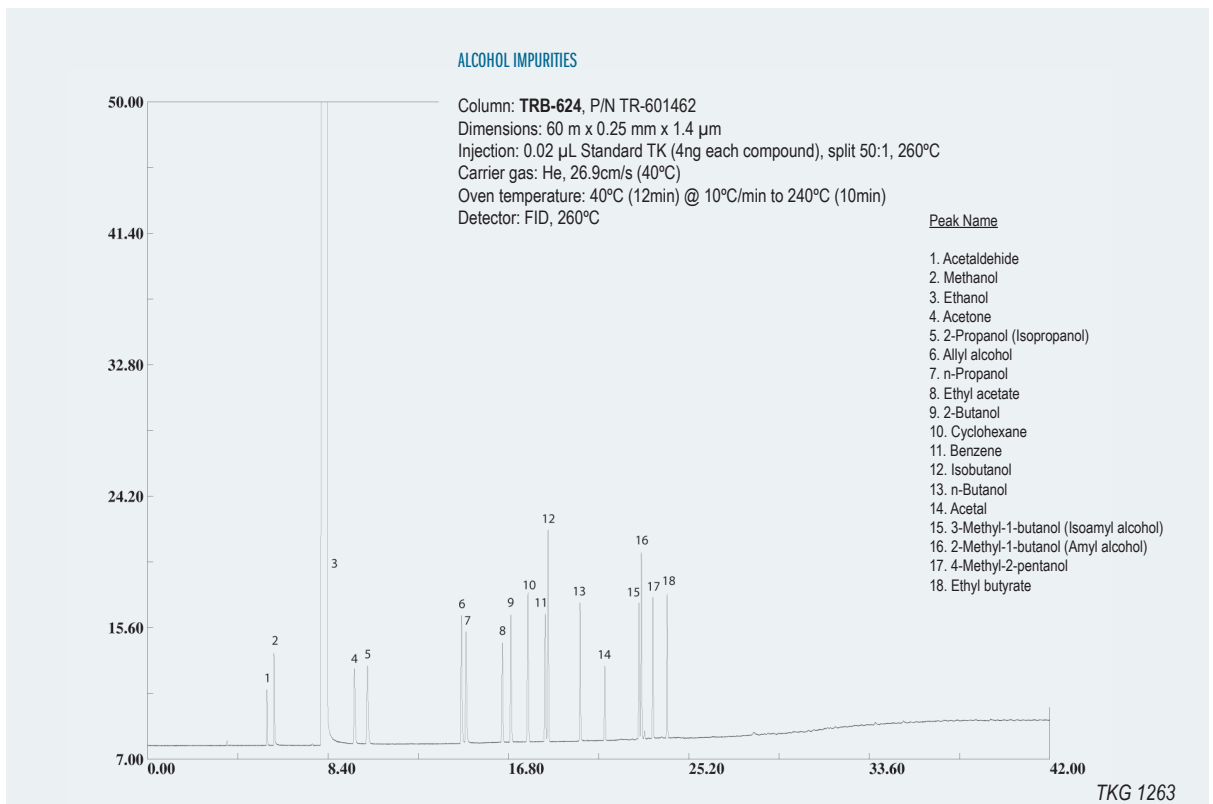
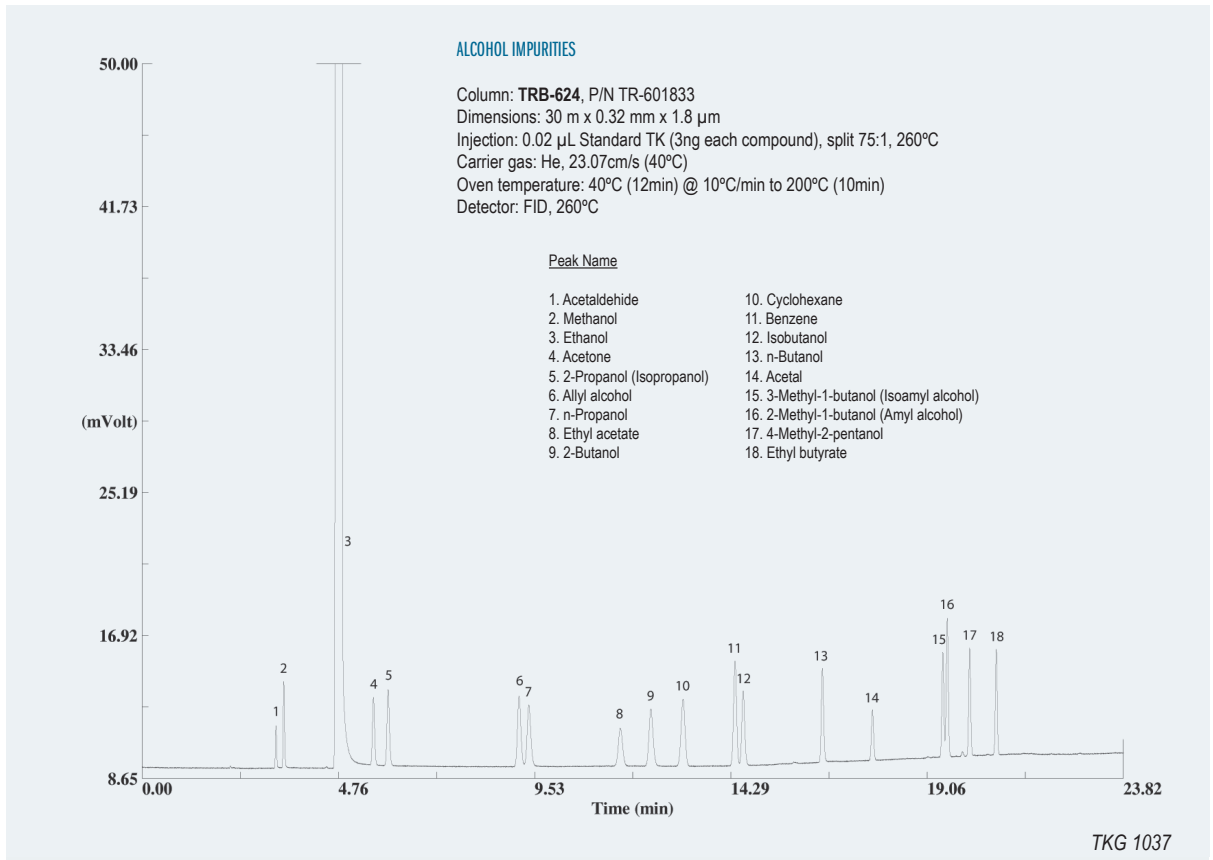
**IMPURITIES OF n-BUTANOL**

Column: **TRB-5**, P/N TR-120232  
 Dimensions: 30m x 0.25mm x 0.25 µm  
 Injection: 1 µL n-Butanol, split 1:20, 250°C  
 Carrier gas: He, constant flow 1 mL/min  
 Oven temperature: 40°C @ (5min) @ 4°C/min to 200°C  
 @ 15°C/min to 300°C  
 Detector: MS, 280°C (interphase)

Chromatogram provided by F. Sisteré from IUCT

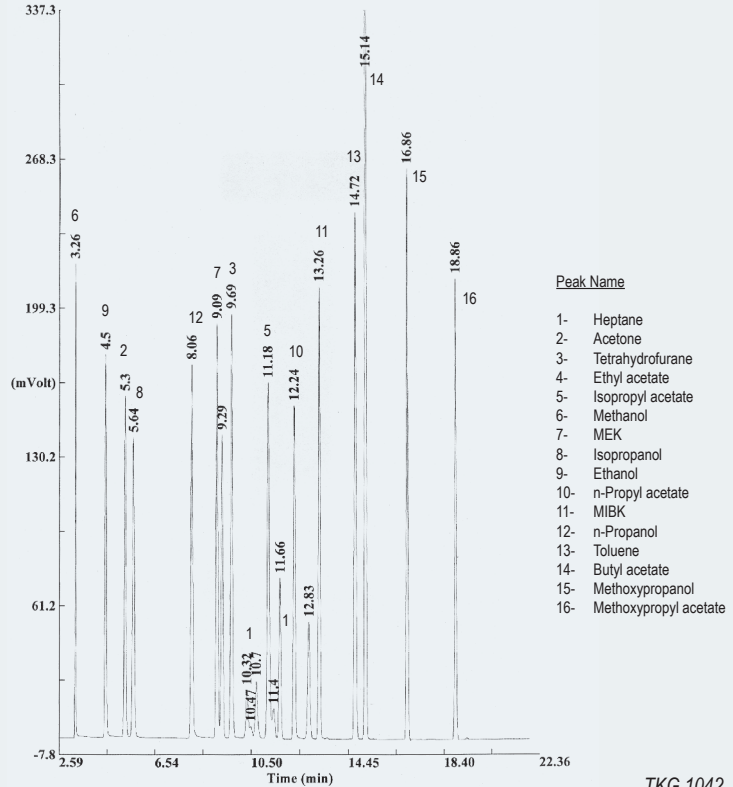


TKG 1035



SEPARATION OF SOLVENTS

Column: **TRB-624**, P/N TR-603075  
 Dimensions: 75m x 0.53mm x 3.0 µm  
 Injection: 0.2 µL, split 1:5, 260°C  
 Carrier gas: H<sub>2</sub>, constant pressure 7.8 psi (53.74 KPa).  
 Oven temperature: 40°C(5min) @ 7°C/min to 240°C  
 Detector: FID, 280°C

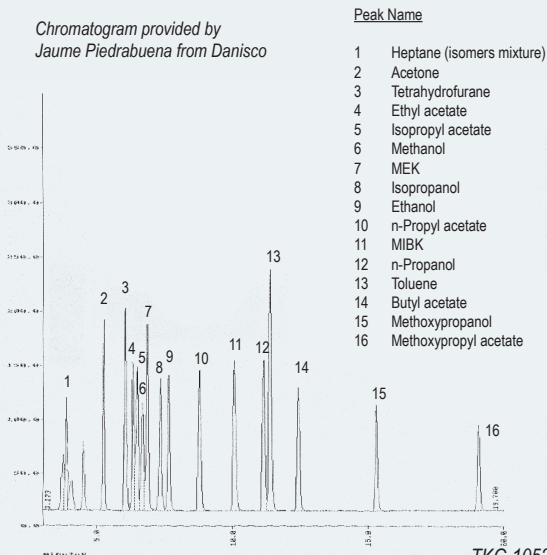


TKG 1042

SEPARATION OF SOLVENTS

Column: **TRB-WAX**, P/N TR-141253  
 Dimensions: 50m x 0.32mm x 1.2 µm  
 Injection: 1 µL standard (500 ng/mL comp.), split 1:25, 260°C  
 Carrier gas: He, constant pressure 12 psi (82.7 Kpa)  
 Oven temperature: 65°C(7min) @ 4°C/min to 117°C  
 Detector: FID, 260°C

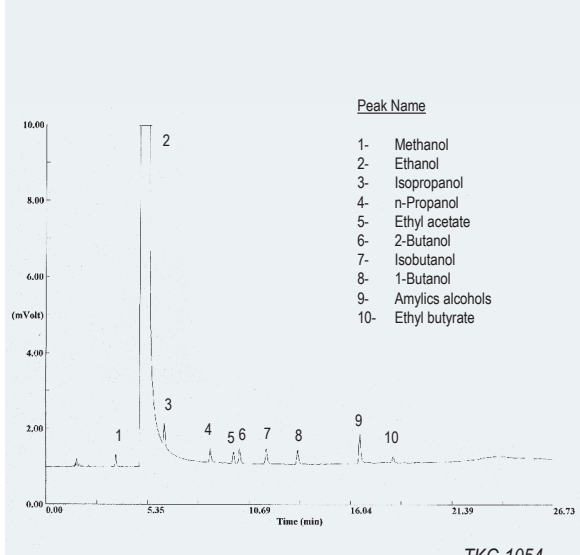
Chromatogram provided by  
 Jaume Piedrabuena from Danisco



TKG 1052

IMPURITIES OF ETHANOL

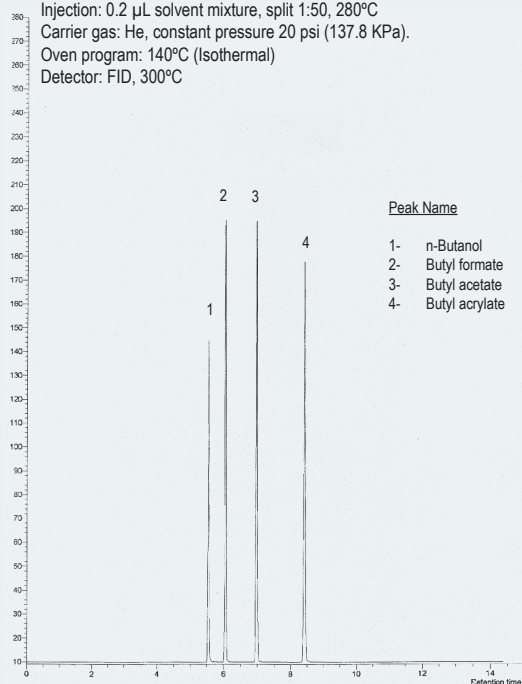
Column: **TRB-G43**, P/N TR-163035  
 Dimensions: 30m x 0.53mm x 3.0 µm  
 Injection: 1 µL standard alcohols (20 ppm/comp), split 1:5, 200°C  
 Carrier gas: He, constant pressure 2.6 psi (17.9 KPa).  
 Oven temperature: 42°C(4min) @ 5°C/min to 140°C(4min)  
 Detector: FID, 200°C



TKG 1054

## SEPARATION IMPURITIES OF BUTYL ACRYLATE

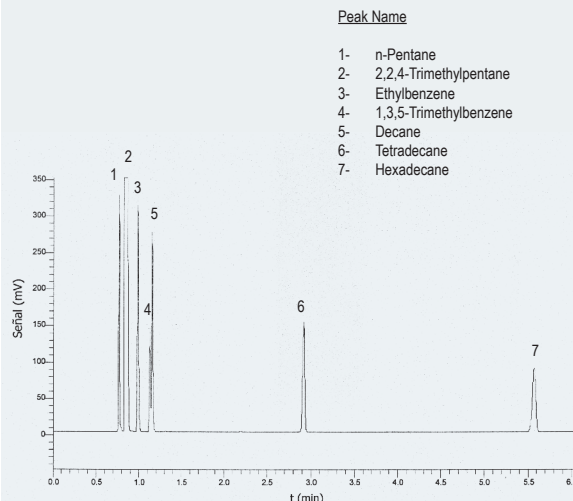
Column: **TRB-1**, P/N TR-111052  
 Dimensions: 50m x 0.25mm x 1.0  $\mu$ m  
 Injection: 0.2  $\mu$ L solvent mixture, split 1:50, 280°C  
 Carrier gas: He, constant pressure 20 psi (137.8 kPa).  
 Oven program: 140°C (Isothermal)  
 Detector: FID, 300°C



TKG 1056

## SEPARATION OF HYDROCARBONS (FAST CHROMATOGRAPHY)

Column: **TRB-1**, P/N TR-110441  
 Dimensions: 10m x 0.10mm x 0.40  $\mu$ m  
 Injection: 0.5  $\mu$ L standard Hydrocarbons  
 (0.95%/comp. in 2,2,4-Trimethylpentane), split 1:200, 200°C  
 Carrier gas: He, constant pressure 40 psi (275.6kPa).  
 Oven temperature: 190°C (Isothermal)  
 Detector: FID, 200°C

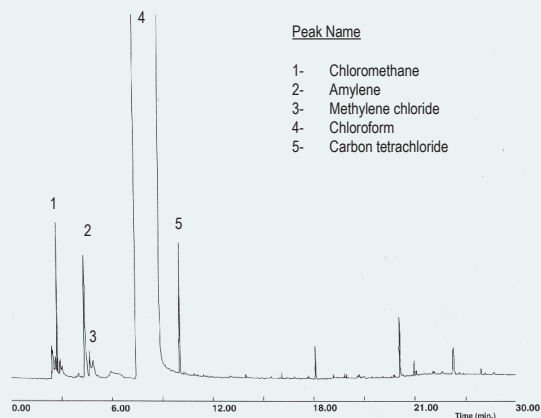


Chromatogram provided by J.I. Gómez Cívicos, M<sup>º</sup>A. Uguina Zamorano and J.L. Sotelo Sancho from Universidad Complutense de Madrid

TKG 1057

## CHLOROFORM PURITY

Column: **TRB-5**, P/N TR-121063  
 Dimensions: 60m x 0.32mm x 1.0  $\mu$ m  
 Injection: 250°C, 2  $\mu$ L (split 20:1)  
 Carrier gas: H<sub>2</sub>, 11 psi (75.8 kPa).  
 Oven temperature: 40°C (8 min) to 200°C(5min) @ 10°C/min  
 Detector: FID, 250°C

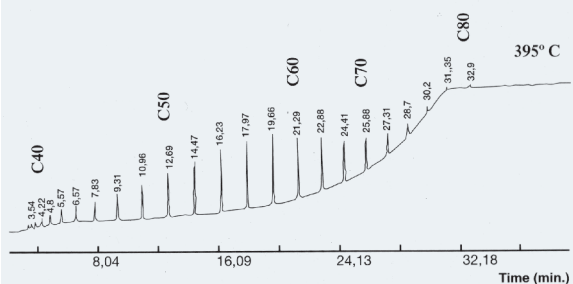


TKG 1062

## POLYWAX 655

Column: **TRB-5ht**, P/N TR-620112  
 Dimensions: 15m x 0.32mm x 0.1  $\mu$ m  
 Injection: 0, 2  $\mu$ L (split) 2% Polywax 655 in Carbon sulfide  
 Oven program: 70°C to 250°C @ 70°C/min. to 395°C(10min)  
 @ 5°C/min.  
 Detector: FID, 410°C

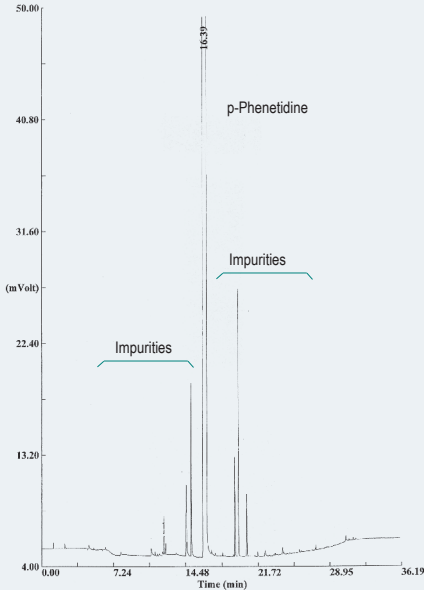
(base line without compensation)



TKG 1065

**IMPURITIES OF p-PHENETIDINE**

Column: **TRB-5A**, P/N TR-210532  
 Dimensions: 30m x 0.32mm x 0.50 μm  
 Injection: p-Phenetidine wet needle, split 1:50, 260°C  
 Carrier gas: H<sub>2</sub>, 11 psi (69 KPa)  
 Oven temperature: 80°C(5min) @ 7°C/min to 260°C (6min)  
 Detector: FID, 300°C

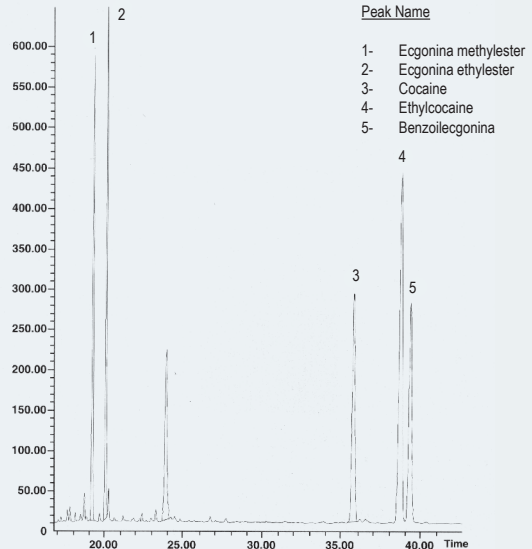


TKG 1090

**DRUGS IN URINE**

Column: **TRB-5ms**, P/N TR-520129  
 Dimensions: 25m x 0.20mm x 0.11 μm  
 Injection: 250°C, 1 μl splitless (BSTFA Derivatives in ACN)  
 Carrier gas: He, 15 psi (103.3 kPa)  
 Oven temperature: 60°C (1') to 180°C (1') @ 10°C/min. to 220°C @ 10°C/min.  
 Detector: FID, 280°C

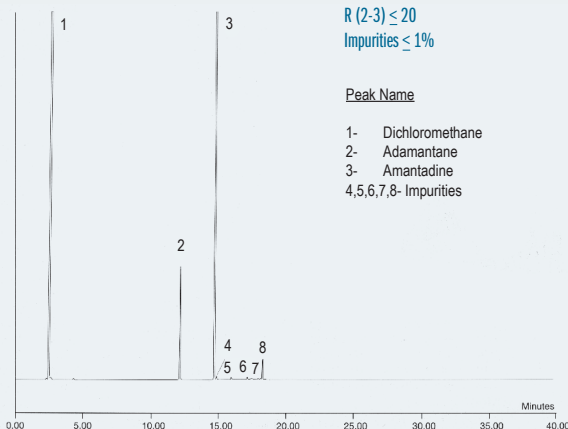
Chromatogram provided by Jordi To, Hospital Clinico from Barcelona.



TKG 1067

**AMANTADINE HYDROCHLORIDE IMPURITIES**

Column: **TRB-5 AMINE**, P/N TR-211035  
 Dimensions: 30m x 0.53mm x 1.0m  
 Injection: 2 μl (split 1:50), 220°C  
 Carrier gas: He, 4.2 psi (28.9 kPa)  
 Oven temperature: 70°C (5') to 250°C (20min) @ 10°C/min.  
 Detector: FID, 300°C  
 Sample: Test solution according to USP 25

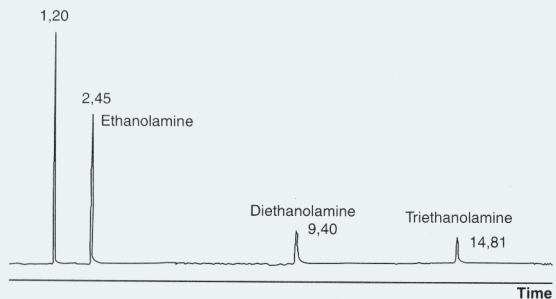


R (2-3) ≤ 20  
 Impurities ≤ 1%

TKG 1074

**ETHANOLAMINES SEPARATION (25 ng/peak level)**

Column: **TRB-5 AMINE**, P/N TR-210533  
 Dimensions: 30m x 0.32mm x 0.50 μm  
 Injection: 2 μl (split 1:50), 280°C  
 Carrier gas: H<sub>2</sub>, 7 psi (48.2 kPa)  
 Oven temperature: 50°C (2') to 200°C @ 10°C/min.  
 Detector: FID, 300°C  
 Sample: Ethanolamines solution in methanol (1,25 mg/ml)



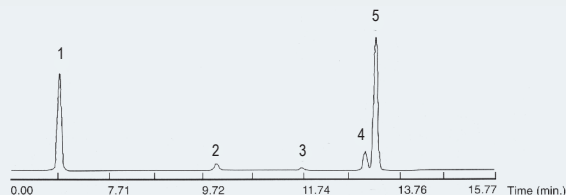
TKG 1075



## USP SOLVENTS <USP> COLUMN TRB-G27+GUARDCOLUMN 5M

Column: **TRB-G27**, P/N-175035  
 Dimensions: 30m x 0.53mm x 5.0 µm  
 Oven temp.: 35°C(5') to 175°C@ 8°C/min. to 260°C (16')@35°C/min.  
 Carrier gas: He, 4.5 psi (31 KPa), 35 cms. to 35°C  
 Injector temp: 70°C  
 FID temp: 260°C  
 Injection: Direct injection of 1 µl (Uniliner), standard dissolution in distilled water (1:10)

Standard	Concentration
1- Methylene chloride	600ppm
2- Chloroform	60ppm
3- Benzene	2ppm
4- Trichloroethylene	80ppm
5- 1,4 - Dioxan	380ppm



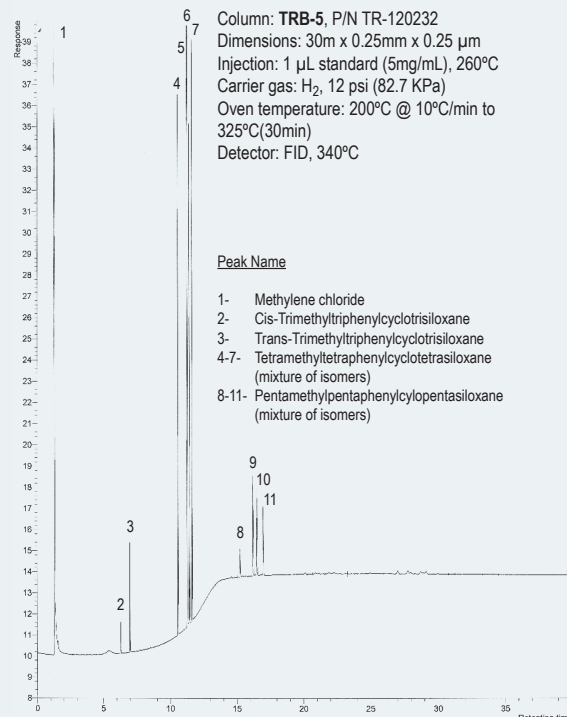
TKG 1076

## ANALYSIS OF CYCLOSILOXANES

Column: **TRB-5**, P/N TR-120232  
 Dimensions: 30m x 0.25mm x 0.25 µm  
 Injection: 1 µL standard (5mg/mL), 260°C  
 Carrier gas: H<sub>2</sub>, 12 psi (82.7 KPa)  
 Oven temperature: 200°C @ 10°C/min to 325°C(30min)  
 Detector: FID, 340°C

### Peak Name

- 1- Methylene chloride
- 2- Cis-Trimethyltriphenylcyclotrisiloxane
- 3- Trans-Trimethyltriphenylcyclotrisiloxane
- 4-7- Tetramethyltetraphenylcyclotetrasiloxane (mixture of isomers)
- 8-11- Pentamethylpentaphenylcyclopentasiloxane (mixture of isomers)



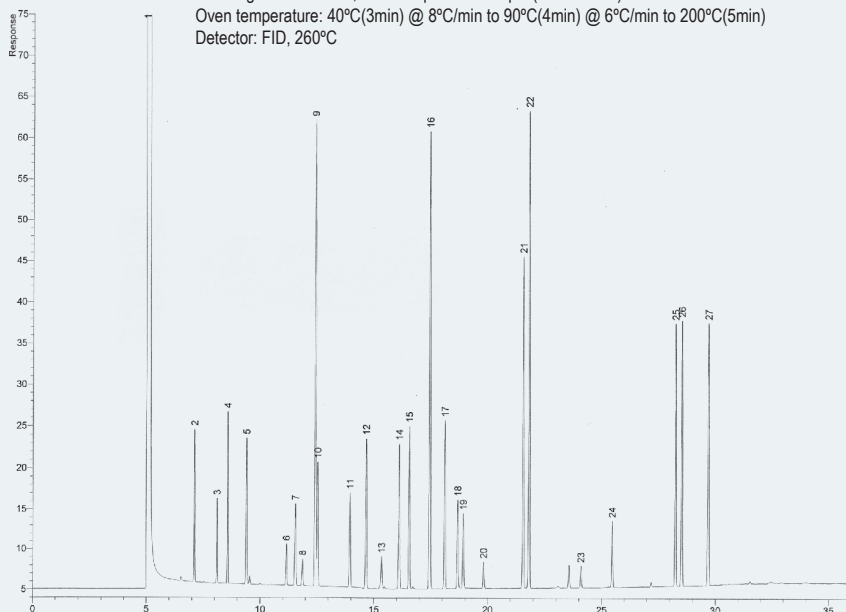
TKG 1094

## EPA 601/602 PURGEABLE HALOCARBONS MIX PLUS 2-CHLOROETHYL VINYL ETHER

Column: **TRB-624**, P/N TR-601462  
 Dimensions: 60m x 0.25mm x 1.4 µm  
 Injection: 0.5 µL EPA 601/602 Purgeable Halocarbons Mix (2000 ng/mL), split 1:50, 260°C  
 Carrier gas: He 30cm/s, constant pressure 35 psi (241.15 KPa)  
 Oven temperature: 40°C(3min) @ 8°C/min to 90°C(4min) @ 6°C/min to 200°C(5min)  
 Detector: FID, 260°C

### Peak Name

- 1- Methanol
- 2- 1,1-Dichloroethylene
- 3- Methylene chloride
- 4- trans-1,2-Dichloroethylene
- 5- 1,1-Dichloroethane
- 6- Chloroform
- 7- 1,1,1-Trichloroethane
- 8- Carbon Tetrachloride
- 9- Benzene
- 10- 1,2-Dichloroethane
- 11- Trichloroethylene
- 12- 1,2-Dichloropropane
- 13- Bromodichloromethane
- 14- 2-Chloroethyl vinyl ether
- 15- cis-1,3-Dichloropropene
- 16- Toluene
- 17- trans-1,3-Dichloropropene
- 18- 1,1,2-Trichloroethane
- 19- Tetrachloroethylene
- 20- Dibromochloromethane
- 21- Chlorobenzene
- 22- Ethylbenzene
- 23- Bromoform
- 24- 1,1,2,2-Tetrachloroethane
- 25- 1,3-Dichlorobenzene
- 26- 1,4-Dichlorobenzene
- 27- 1,2-Dichlorobenzene



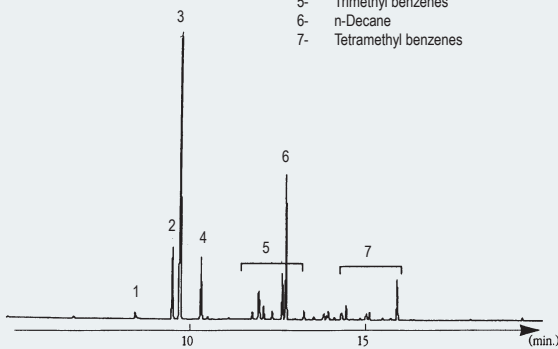
TKG 1093

**SOLVENTS IN WATER**

Column: **TRB-5**, P/N TR-120232  
 Dimensions: 30m x 0.25mm x 0.25 m  
 Injection: 1 µL, split  
 Carrier gas: He  
 Oven temperature:  
 Detector: FID

Chromatogram provided by J. Teixidor and E. Bosch from Laboratory Dr. Riera

- Peak Name
- 1- Butyl acetate
  - 2- Ethyl acetate
  - 3- m,p-Xylene
  - 4- o-Xylene
  - 5- Trimethyl benzenes
  - 6- n-Decane
  - 7- Tetramethyl benzenes

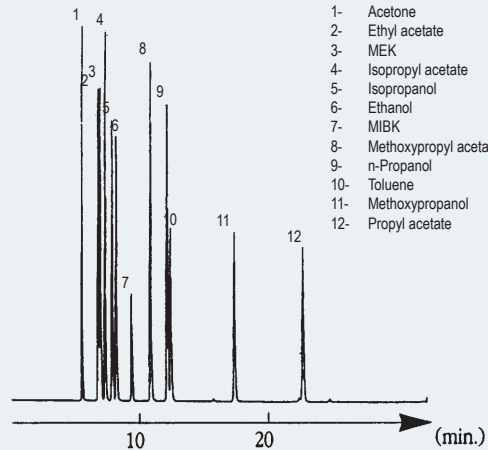


TKG 1160

**INDUSTRIAL SOLVENTS**

Column: **TR-WAX**, P/N TR-141253  
 Dimensions: 50m x 0.32mm x 1.2 µm  
 Injection: 0.1 µL, split  
 Carrier gas: H<sub>2</sub>, 16 psi (110.24 KPa)  
 Oven temperature: 60°C @ 2°C/min to 125°C  
 Detector: FID, 250°C

- Peak Name
- 1- Acetone
  - 2- Ethyl acetate
  - 3- MEK
  - 4- Isopropyl acetate
  - 5- Isopropanol
  - 6- Ethanol
  - 7- MIBK
  - 8- Methoxypropyl acetate
  - 9- n-Propanol
  - 10- Toluene
  - 11- Methoxypropanol
  - 12- Propyl acetate

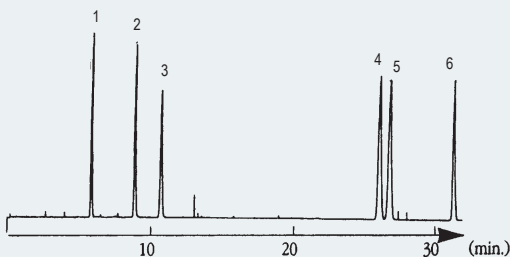


TKG 1161

**INDUSTRIAL SOLVENTS**

Column: **TR-WAX**, P/N TR-141233  
 Dimensions: 30m x 0.32mm x 1.2 µm  
 Injection: 0.1 µL, split  
 Carrier gas: He, 12 psi (82.7 KPa)  
 Oven temperature: 40°C @ 1°C/min to 70°C @ 7.5°C/min to 125°C  
 Detector: FID, 250°C

- Peak Name
- 1- Acetone
  - 2- Methanol
  - 3- Ethanol
  - 4- p-Xylene
  - 5- m-Xylene
  - 6- o-Xylene

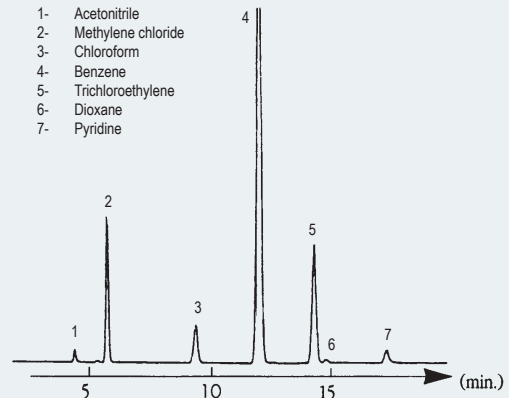


TKG 1162

**INDUSTRIAL SOLVENTS IN RAW MATERIALS**

Column: **TRB-5**, P/N TR-125035  
 Dimensions: 30m x 0.53mm x 5.0 µm  
 Injection: 1 µL, head space  
 Carrier gas: N<sub>2</sub>, 5 mL/min  
 Oven temperature: 40°C(5min) @ 3°C/min to 110°C  
 Detector: FID

- Peak Name
- 1- Acetonitrile
  - 2- Methylene chloride
  - 3- Chloroform
  - 4- Benzene
  - 5- Trichloroethylene
  - 6- Dioxane
  - 7- Pyridine



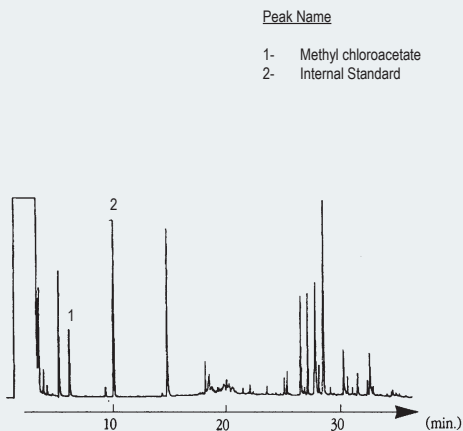
TKG 1163

## IMPURITIES IN RAW MATERIALS

### Analysis of Monochloroacetic acid

Column: **TRB-5**, P/N TR-120233  
 Dimensions: 30m x 0.32mm x 0.25  $\mu$ m  
 Injection: splitless 1 min, 260°C  
 Carrier gas: He, 8 psi  
 Oven temperature: 30°C(12min) @ 10°C/min to 250°C  
 Detector: FID, 260°C

Chromatogram provided by A. Tintó from MOEHS, S.A., Barcelona.

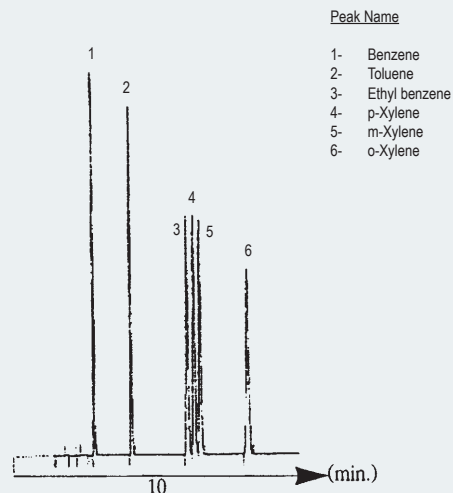


TKG 1164

## AROMATIC SOLVENTS

Column: **TRB-WAX**, P/N TR-141233  
 Dimensions: 30m x 0.32mm x 1.2  $\mu$ m  
 Injection: split  
 Carrier gas: He, 10 psi (68.9 KPa)  
 Oven temperature: 80°C (Isothermal)  
 Detector: FID, 250°C

Chromatogram provided by E. Cura from SGS, S.A., Barcelona.

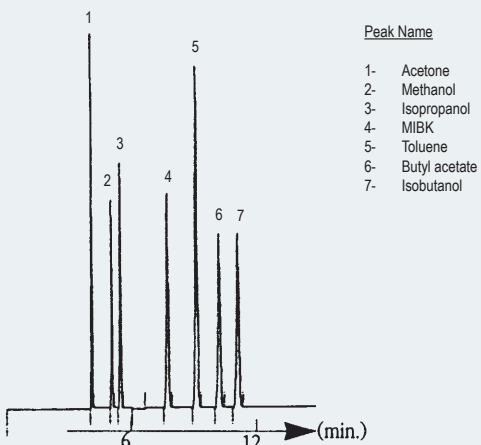


TKG 1165

## MIXTURE OF SOLVENTS

Column: **TRB-WAX**, P/N TR-141233  
 Dimensions: 30m x 0.32mm x 1.2  $\mu$ m  
 Injection: split  
 Carrier gas: He, 10 psi (68.9 KPa)  
 Oven temperature: 75°C (Isothermal)  
 Detector: FID, 250°C

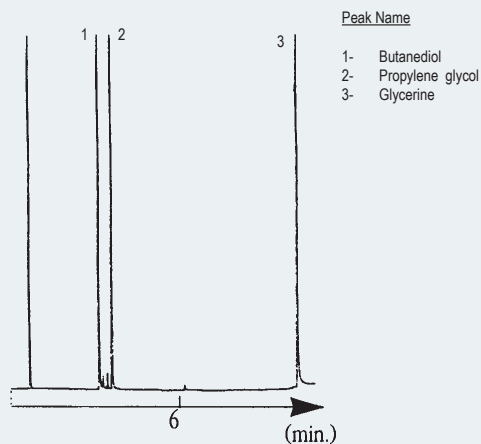
Chromatogram provided by E. Cura from SGS, S.A., Barcelona.



TKG 1166

## GLYCOLS IN WATER

Column: **TRB-FFAP**, P/N TR-150535  
 Dimensions: 30m x 0.53mm x 0.5  $\mu$ m  
 Injection: 1  $\mu$ L, split  
 Carrier gas: H<sub>2</sub>, 2 psi (13.8 KPa)  
 Oven temperature: 100°C @ 10°C/min to 220°C  
 Detector: FID

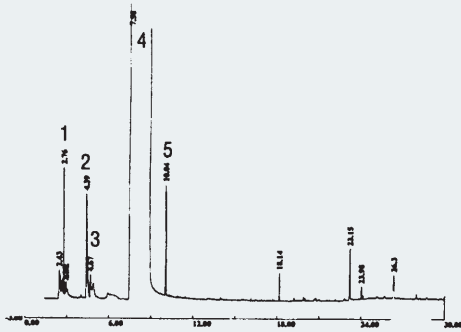


TKG 1167

**PURITY OF CHLOROFORM**

Column: **TRB-5**, P/N TR-121063  
 Dimensions: 60m x 0.32mm x 1.0 µm  
 Injection: 2 µL, split, 260°C  
 Carrier gas: H<sub>2</sub>, 11 psi (75.8 KPa)  
 Oven temperature: 40°C(8min) @ 10°C/min to 200°C(5min)  
 Detector: FID, 260°C

- Peak Name**
- 1- Methyl chloroform
  - 2- Amylene
  - 3- Methylene chloride
  - 4- Chloroform
  - 5- Carbon tetrachloride

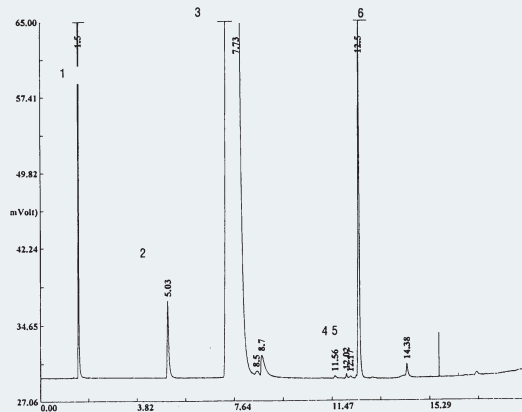


TKG 1168

**IMPURITIES OF DIMETHYLACETAMIDE**

Column: **TRB-WAX**, P/N TR-140232  
 Dimensions: 30m x 0.25mm x 0.25 µm  
 Injection: 0.3 µL, split, 260°C  
 Carrier gas: H<sub>2</sub>, 11 psi (78.8 KPa)  
 Oven temperature: 75°C(7min) @ 10°C/min to 200°C  
 Detector: FID, 280°C

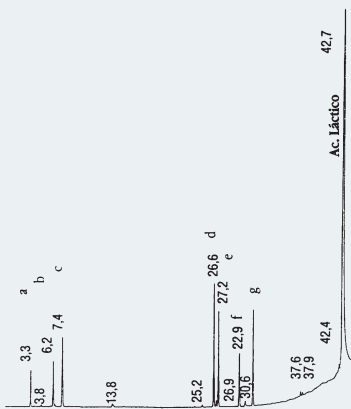
- Peak Name**
- 1- Methanol
  - 2- Dimethylformamide
  - 3- Dimethylacetamide
  - 4- Propylene glycol
  - 5- Ethylene glycol
  - 6- Monomethyl acetamide



TKG 1169

**IMPURITIES OF LACTIC ACID**

Column: **TRB-FFAP**, P/N TR-151035  
 Dimensions: 30m x 0.53mm x 1.0 µm  
 Injection: 0.5 µL, split, 260°C  
 Carrier gas: H<sub>2</sub>, 3 psi (20.7 KPa)  
 Oven temperature: 45°C(15min) @ 8°C/min to 240°C(15min)  
 Detector: FID, 280°C

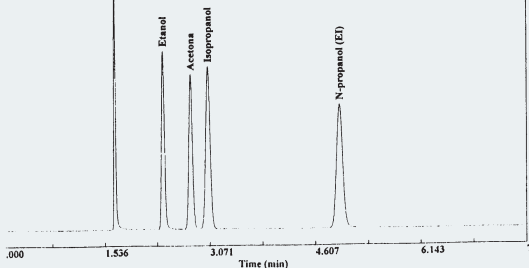


TKG 1170

**ALCOHOLS IN BLOOD**

Column: **TRB-G43**, P/N TR-163035  
 Dimensions: 30m x 0.53mm x 3.0 µm  
 Injection: 1 µL, split, alcohols standard  
 Carrier gas: H<sub>2</sub>, 4 psi (27.6 KPa)  
 Oven temperature: 35°C (isothermal)  
 Detector: FID, 250°C

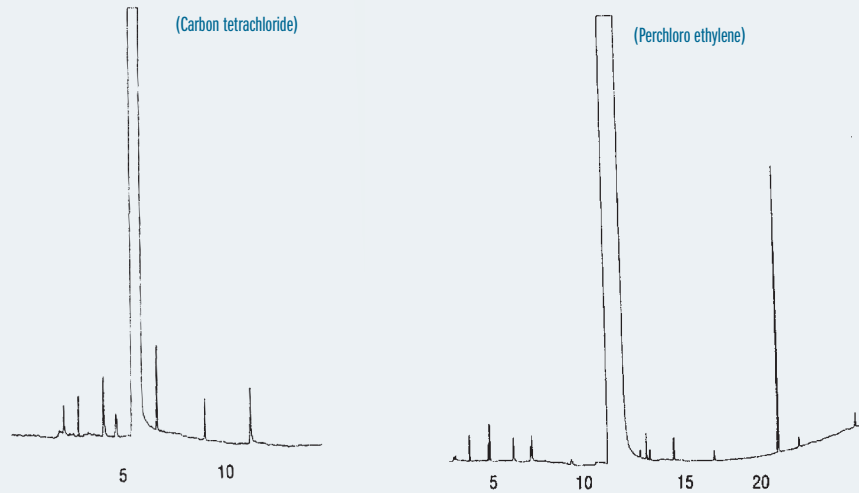
- Peak Name**
- 1- Methanol
  - 2- Ethanol
  - 3- Acetone
  - 4- Isopropanol
  - 5- n-Propanol (I.St.)



TKG 1172

## IMPURITIES IN SOLVENTS

Column: **TRB-1**, P/N TR-110352  
 Dimensions: 50m x 0.25mm x 0.33  $\mu$ m  
 Injection: 1  $\mu$ L, split, neat solvent  
 Carrier gas: H<sub>2</sub>, 19 psi (130.9 KPa)  
 Oven temperature: 35°C(5min) @ 6°C/min to 150°C(5min)  
 Detector: FID, 275°C



TKG 1171

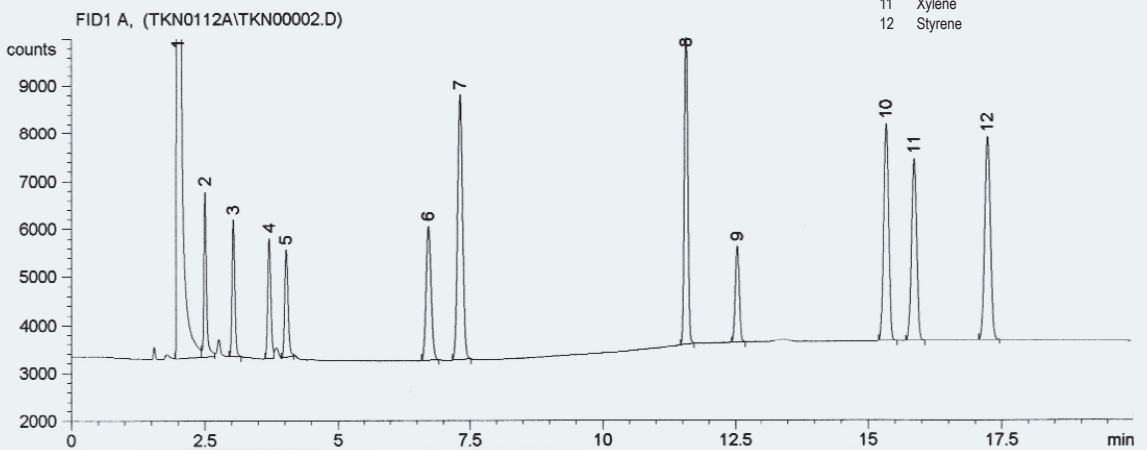
## POLLUTANTS IN BLOOD

Column: **MetaBLOOD 1**, P/N TR-853035  
 Dimensions: 30m x 0.53mm x 3.0 $\mu$ m  
 Injection: 1 mL Head Space 2t (vial 70°C), alcohols and aromatics in blood (2-20 ppm), split 1:30, 225°C  
 Carrier gas: He, 5 psi  
 Oven temperature: 45°C(7 min) @ 10°C/min to 90°C(10min)  
 Detector: FID, 300°C

### Peak Name

- 1 Methanol
- 2 Ethanol
- 3 Isopropanol
- 4 Acetone
- 5 n-Propanol
- 6 Methyl ethyl ketone (MEK)
- 7 Benzene
- 8 Toluene
- 9 Methyl isobutyl ketone (MIBK)
- 10 Ethylbenzene
- 11 Xylene
- 12 Styrene

Chromatogram provided by Dra. Guadalupe Montoya and Dra. Isabel Bonaparte de General Lab (Barcelona)

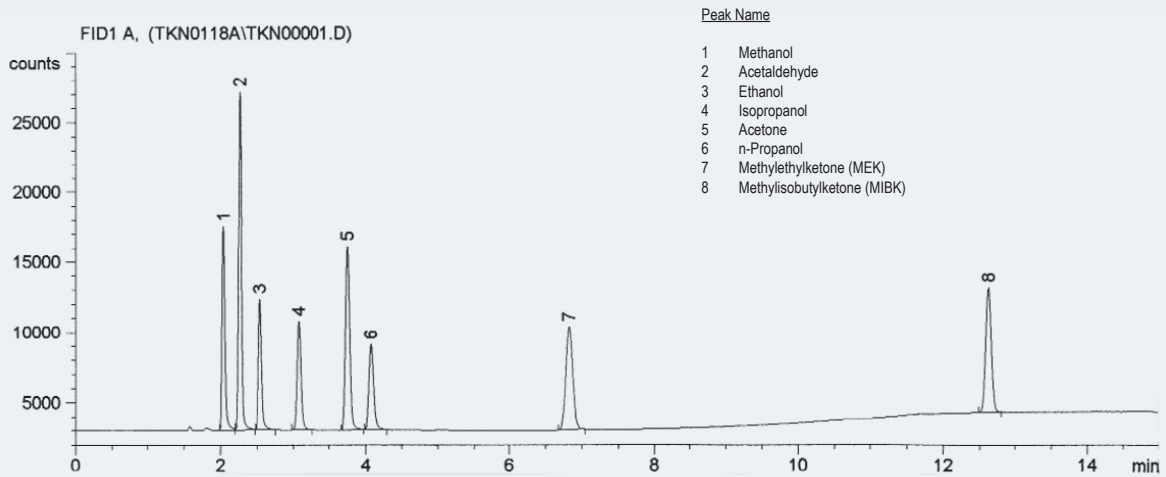


TKG 1210

**POLLUTANTS IN BLOOD**

Column: **MetaBLOOD 1**, P/N TR-853035  
 Dimensions: 30m x 0.53mm x 3.0µm  
 Injection: 1 mL Head Space 2t (vial 70°C), alcohols and aromatics in blood (2-20 ppm), split 1:30, 225°C  
 Carrier gas: He, 5 psi  
 Oven temperature: 45°C(7 min) @ 10°C/min to 90°C(10min)  
 Detector: FID, 300°C

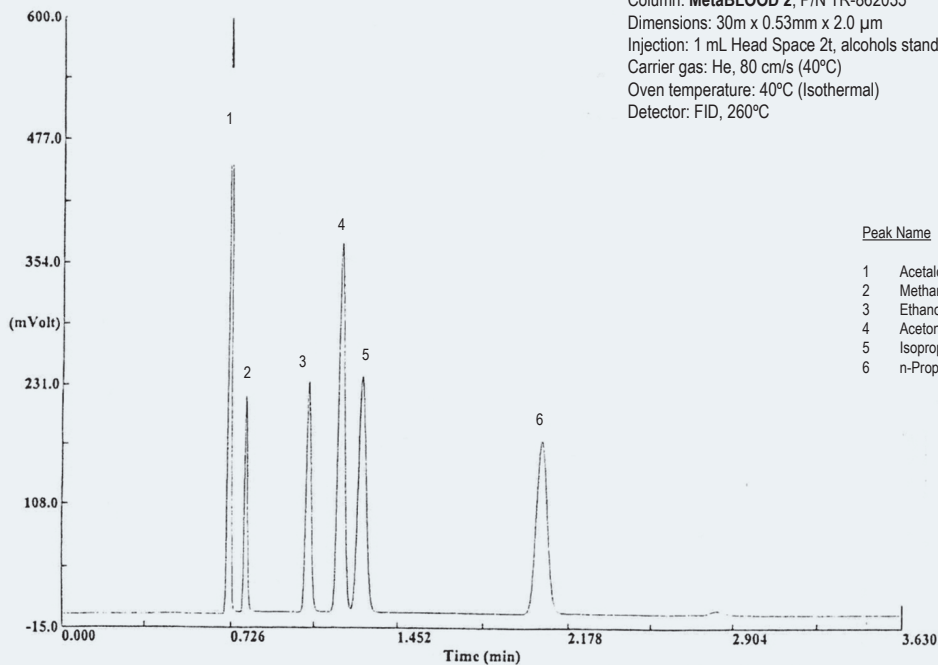
*Chromatogram provided by Dra. Guadalupe Montoya and Dra. Isabel Bonaparte de General Lab (Barcelona)*



TKG 1213

**ALCOHOLS IN BLOOD**

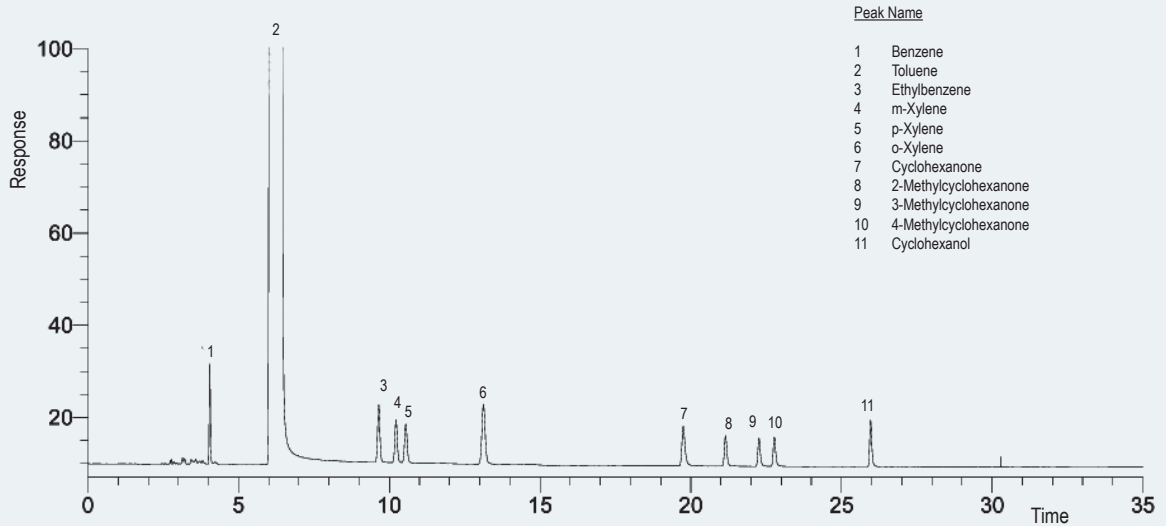
Column: **MetaBLOOD 2**, P/N TR-862035  
 Dimensions: 30m x 0.53mm x 2.0 µm  
 Injection: 1 mL Head Space 2t, alcohols standard, split 1:10, 250°C  
 Carrier gas: He, 80 cm/s (40°C)  
 Oven temperature: 40°C (Isothermal)  
 Detector: FID, 260°C



TKG 1192

**IMPURITIES IN TOLUENE**

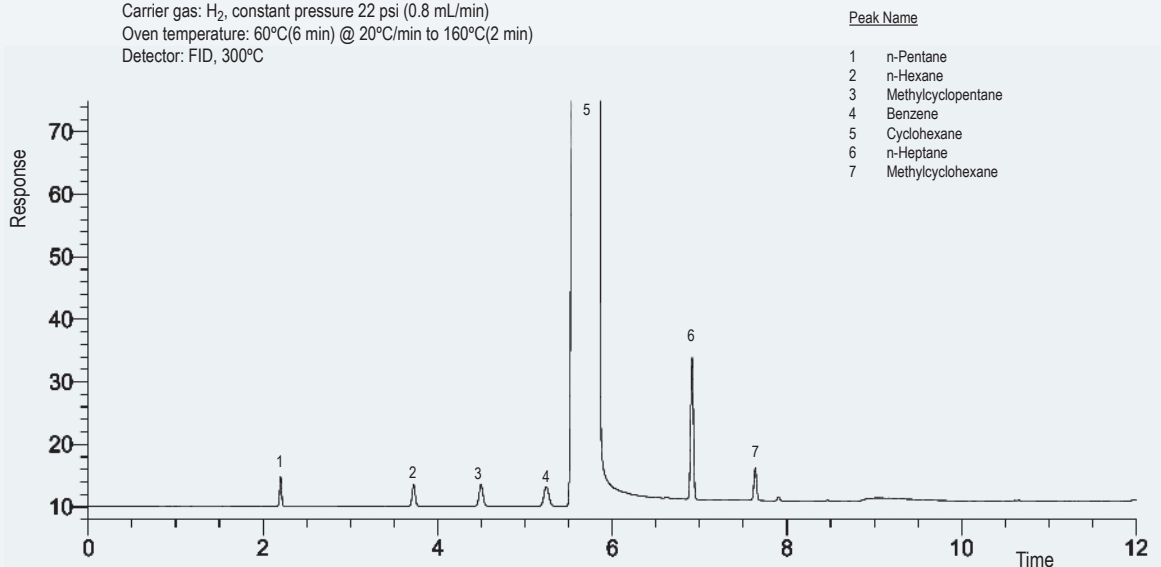
Column: **TRB-PAG**, P/N TR-550232  
 Dimensions: 30m x 0.25mm x 0.25µm  
 Injection: 1 µL Toluene Standard, split 1:50, 260°C  
 Carrier gas: He, constant pressure 11 psi (75.8 Kpa)  
 Oven Temperature: 40°C @ 6°C/min to 230°C(5min)  
 Detector: FID, 260°C



TKG 1194

**IMPURITIES IN CYCLOHEXANE**

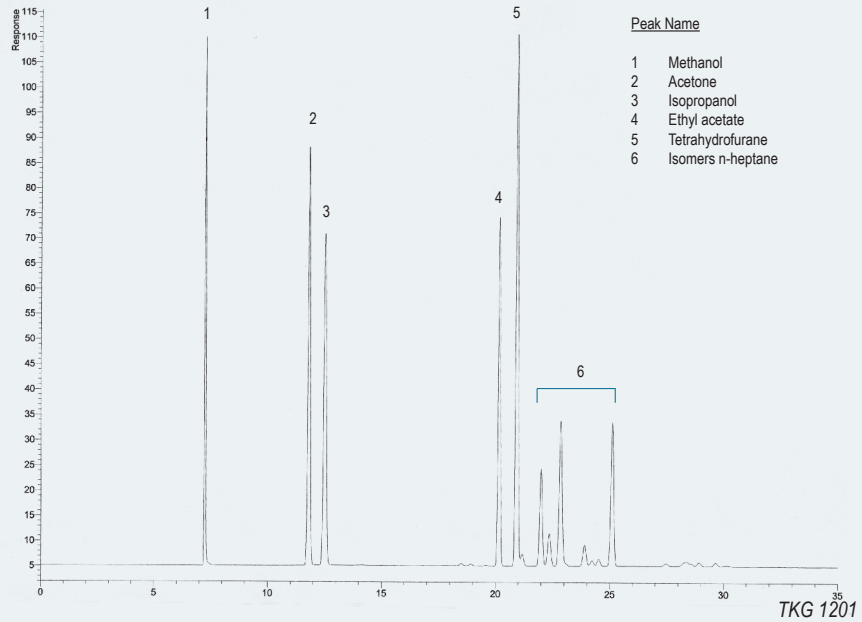
Column: **TRB-1**, P/N TR-111226  
 Dimensions: 25m x 0.15mm x 1.2 µm  
 Injection: 1µL Cyclohexane, split 1:100, 260°C  
 Carrier gas: H<sub>2</sub>, constant pressure 22 psi (0.8 mL/min)  
 Oven temperature: 60°C(6 min) @ 20°C/min to 160°C(2 min)  
 Detector: FID, 300°C



TKG 1195

MIXTURE OF SOLVENTS AND ISOMERS OF N-HEPTANE

Column: **TRB-624**, P/N TR-603075  
 Dimensions: 75m x 0.53mm x 3.0 μm  
 Injection: mixture of solvents (wet needle), split 1:100, 250°C  
 Carrier gas: He, constant pressure 8 psi (55.7 Kpa)  
 Oven temperature: 40°C(15 min) @ 15°C/min to 75°C(15 min)  
 Detector: FID, 250°C

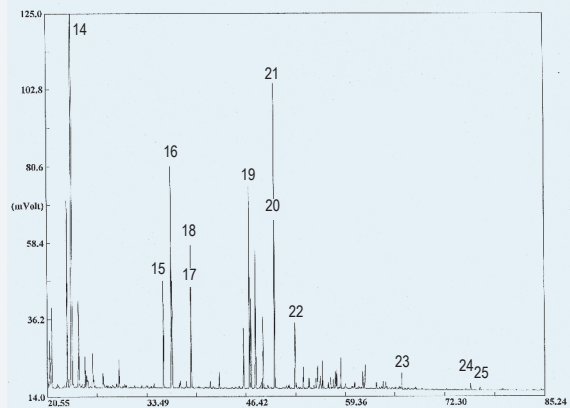
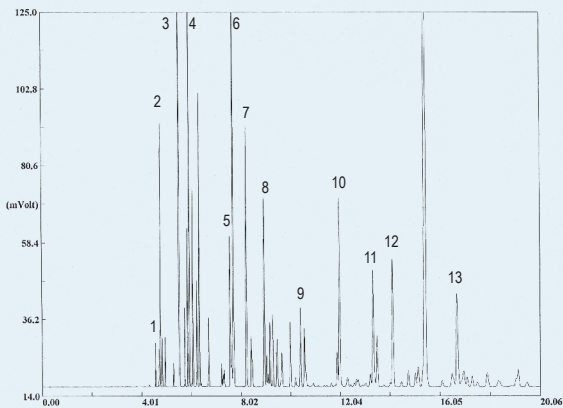


PETROL

Column: **TRB-PETROL**, P/N TR-110592  
 Dimensions: 100m x 0.25mm x 0.50 μm  
 Injection: 0.1 μL petrol, split 100:1, 280°C  
 Carrier gas: H<sub>2</sub>, constant pressure 221Kpa (35°C)  
 Oven temperature: 35°C(18min) @ 2°C/min to 200°C(5min)  
 Detector: FID, 280°C

Peak Name

- |    |                     |    |                         |
|----|---------------------|----|-------------------------|
| 1  | isobutane           | 14 | toluene                 |
| 2  | n-butane            | 15 | ethylbenzene            |
| 3  | isopentane          | 16 | m-xylene                |
| 4  | pentane             | 17 | p-xylene                |
| 5  | 2,3-dimethylbutane  | 18 | o-xylene                |
| 6  | 2-methylpentane     | 19 | 1-methyl-3-ethylbenzene |
| 7  | 3-methylpentane     | 20 | 1,3,5-trimethylbenzene  |
| 8  | hexane              | 21 | 1,2,4-trimethylbenzene  |
| 9  | 2,4-dimethylpentane | 22 | 1,2,3-trimethylbenzene  |
| 10 | benzene             | 23 | naphtalene              |
| 11 | 2-methylhexane      | 24 | 2-methylnaphtalene      |
| 12 | 3-methylhexane      | 25 | 1-methylnaphtalene      |
| 13 | n-heptane           |    |                         |



TKG 1203



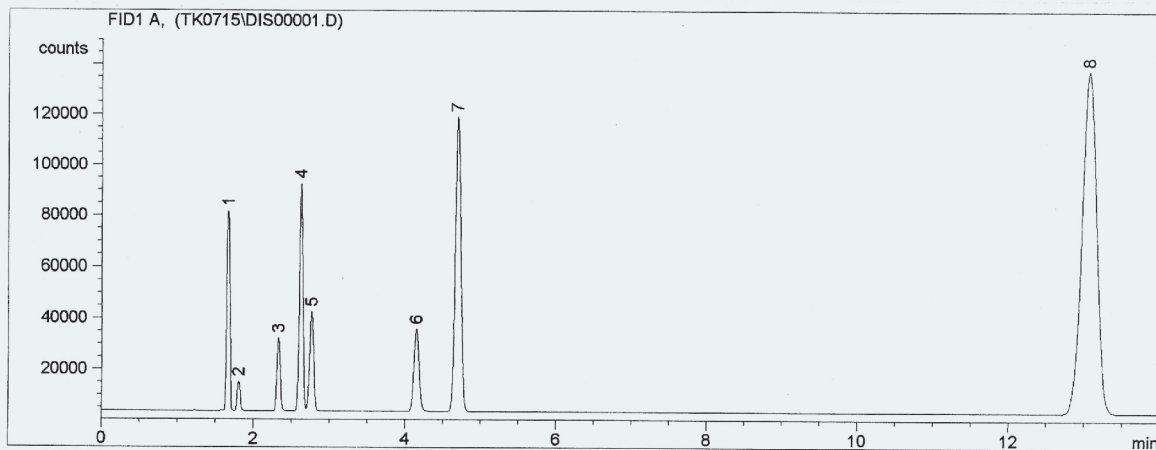
## ALCOHOLS IN BLOOD

Column: **MetaBLOOD 2**, P/N TR-862035  
 Size: 30m x 0.53mm x 2.0µm  
 Carrier gas: He, 5 psi  
 Oven Temperature: 45°C (15 min)  
 Injection: 1 mL Head Space 2t (vial 70°C), alcohols in blood (2-20 ppm), split 1:20, 225°C  
 Detector: FID, 300°C

Chromatogram provided by *Dra. Guadalupe Montoya y Dra. Isabel Bonaparte*  
 from General Lab (Barcelona)

### Peak Name

- 1 Acetaldehyde
- 2 Methanol
- 3 Ethanol
- 4 Acetone
- 5 Isopropanol
- 6 n-Propanol
- 7 Methyl ethyl ketone (MEK)
- 8 Methylisobutylketone (MIBK)



TKG 1209

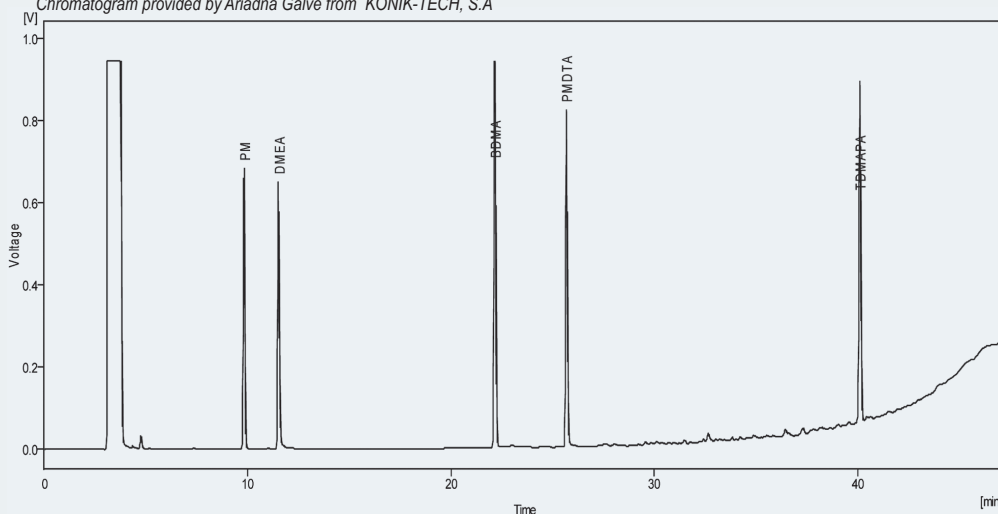
## AMINES

Column: **TRB-624**, P/N TR-603065  
 Size: 60m x 0.53mm x 3.0µm  
 Injection: 1 µl amines standard, split 1:5, 260°C  
 Carrier Gas: He, 8 mL/min  
 Program temperature: 40°C (1min) @ 5°C/min to 260°C (10min)  
 Detector: FID KONIK-TECH, 270°C

### Sample

- PM (1-methoxy-2-propanol)
- DMEA (N,N-dimethylethanolamine)
- BDMA (N,N-dimethylbenzylamine)
- PMDTA (pentamethyldiethylenetriamine)
- TDMAPA (N,N,N-tris(3-dimethylaminopropyl)amine)

Chromatogram provided by *Ariadna Galve* from KONIK-TECH, S.A



TKG 1214

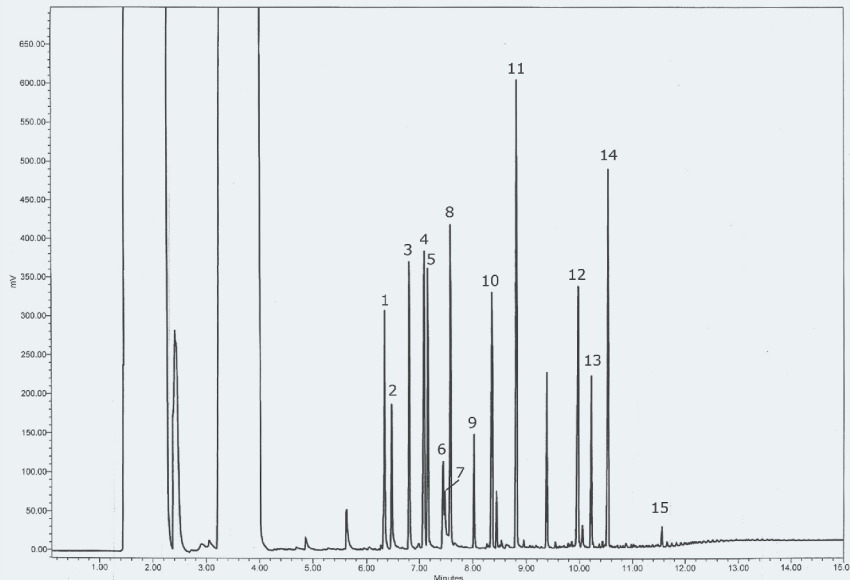
**AMINOACIDS**

Column: **TRB-50ht**, P/N TR-531332  
 Size: 30m x 0.25mm x 0.15µm  
 Injection: 2 µl standard AA-S-18 Sigma (2.5µmol/ml), split, 300°C  
 Carrier gas: He, 1mL/min  
 Program temperature: 50°C (2min) @ 30°C/min to 350°C (3min)  
 Detector: MS Polaris Q, EI, 200°C, transfer line 200°C

Peak Name

- 1 Alanine
- 2 Glycine
- 3 Valine
- 4 Leucine
- 5 Isoleucine
- 6 Serine
- 7 Threonine
- 8 Proline
- 9 Hydroxyproline
- 10 Methionine
- 11 Phenylalanine
- 12 Lysine
- 13 Histidine
- 14 Tyrosine
- 15 Cystine

Chromatogram provided by Antonio Tintó from Moehs S.A.



TKG 1215

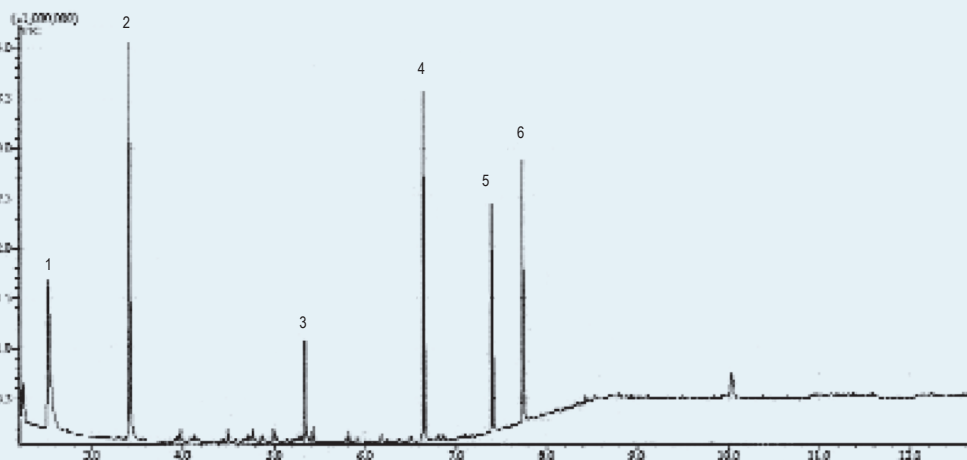
**HYDROCARBONS**

Column: **TRB-1ht**, P/N TR-610133  
 Size: 30m x 0.32mm x 0.1µm  
 Injection: hydrocarbons standard 1250 ppb, splitless, 250°C  
 Carrier gas: He, constant flow 2 mL/min  
 Program Temperature: 50°C (1 min) @ 40°C/min to 320°C (5 min)  
 Detector: MS, ion source 200°C, Interfase 280°C, scan 20-600

Peak Name

- 1 C10
- 2 C12
- 3 C24
- 4 C28
- 5 C30
- 6 C40

Chromatogram provided by Vanesa Riu de ILERSAP, Mollerussa (Lleida).



IKG 1221

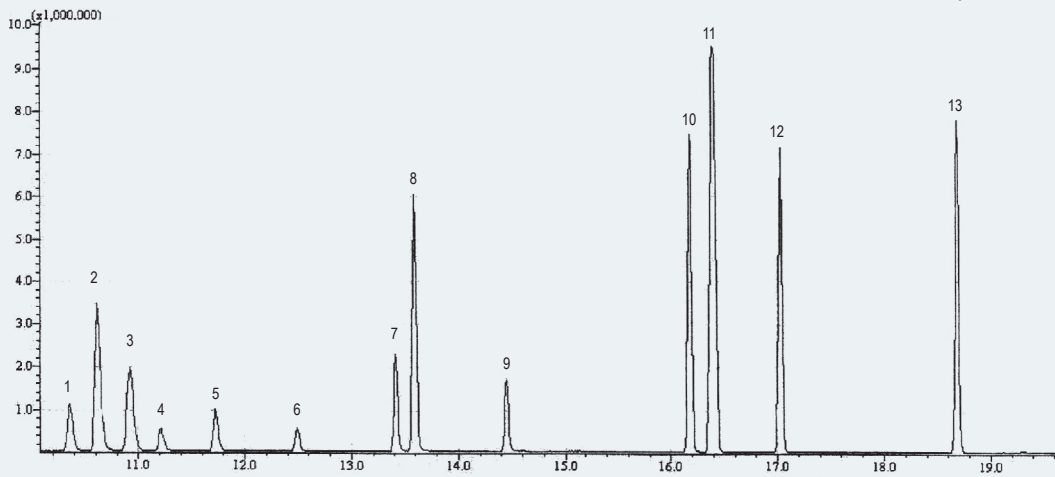
## VOLATIL SOLVENTS NO HALOGENATED

Column: **TRB-1**, P/N TR-111062  
 Size: 60m x 0.25mm x 1.0µm  
 Injection: 1 mL Headspace (70°C, 20min), split 1:5, 250°C  
 Carrier Gas: He, constant flow 1mL/min  
 Program Temperature: 40°C(2 min) @ 8°C/min to 240°C(10 min)  
 Detector: MS, ion source 200°C, Interfase 250°C, scan 20-400

Chromatogram provided by Vanesa Riu de ILERSAP, Mollerussa (Lleida).

### Peaks

- 1 Isobutyl acetate
- 2 Benzene
- 3 Cyclohexane
- 4 3-Pentanone
- 5 Propyl acetate
- 6 Methyl isobutyl ketone
- 7 Isobutyl acetate
- 8 Toluene
- 9 Butyl acetate
- 10 Ethylbenzene
- 11 m,p-Xylene
- 12 o-Xylene
- 13 Isobutyl Ketone



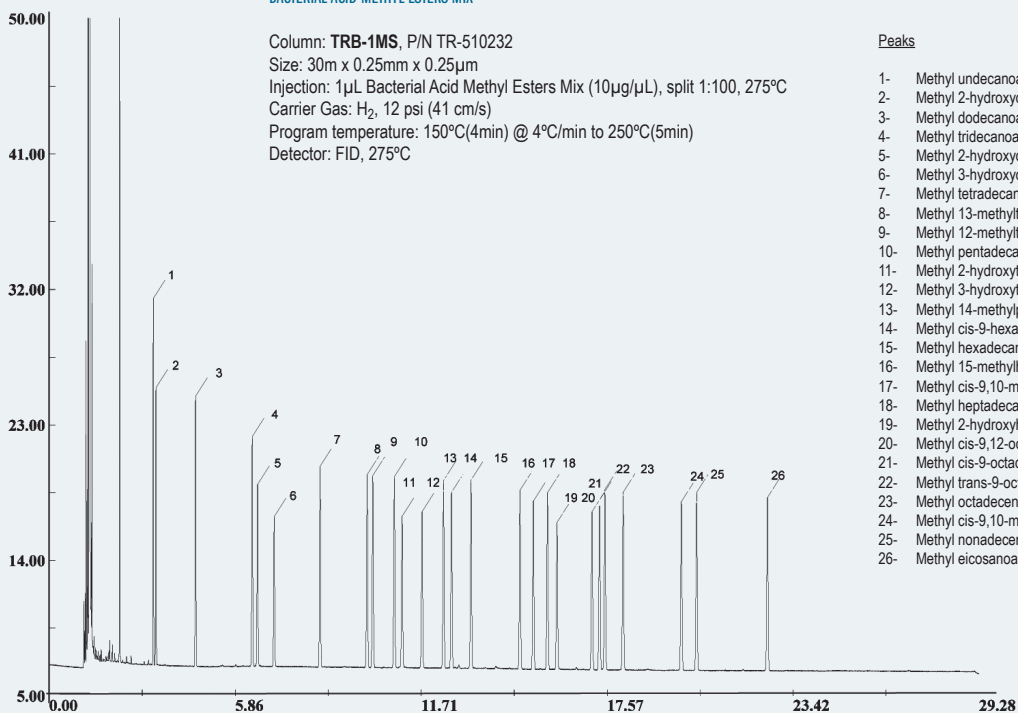
TKG 1220

## BACTERIAL ACID METHYL ESTERS MIX

Column: **TRB-1MS**, P/N TR-510232  
 Size: 30m x 0.25mm x 0.25µm  
 Injection: 1µL Bacterial Acid Methyl Esters Mix (10µg/µL), split 1:100, 275°C  
 Carrier Gas: H<sub>2</sub>, 12 psi (41 cm/s)  
 Program temperature: 150°C(4min) @ 4°C/min to 250°C(5min)  
 Detector: FID, 275°C

### Peaks

- 1- Methyl undecanoate
- 2- Methyl 2-hydroxydodecanoate
- 3- Methyl dodecanoate
- 4- Methyl tridecanoate
- 5- Methyl 2-hydroxydodecanoate
- 6- Methyl 3-hydroxydodecanoate
- 7- Methyl tetradecanoate
- 8- Methyl 13-methyltetradecanoate
- 9- Methyl 12-methyltetradecanoate
- 10- Methyl pentadecanoate
- 11- Methyl 2-hydroxytetradecanoate
- 12- Methyl 3-hydroxytetradecanoate
- 13- Methyl 14-methylpentadecanoate
- 14- Methyl cis-9-hexadecanoate
- 15- Methyl hexadecanoate
- 16- Methyl 15-methylhexadecanoate
- 17- Methyl cis-9,10-methylenehexadecanoate
- 18- Methyl heptadecanoate
- 19- Methyl 2-hydroxyheptadecanoate
- 20- Methyl cis-9,12-octadecadienoate
- 21- Methyl cis-9-octadecenoate
- 22- Methyl trans-9-octadecenoate
- 23- Methyl octadecanoate
- 24- Methyl cis-9,10-methyleneoctadecanoate
- 25- Methyl nonadecanoate
- 26- Methyl eicosanoate



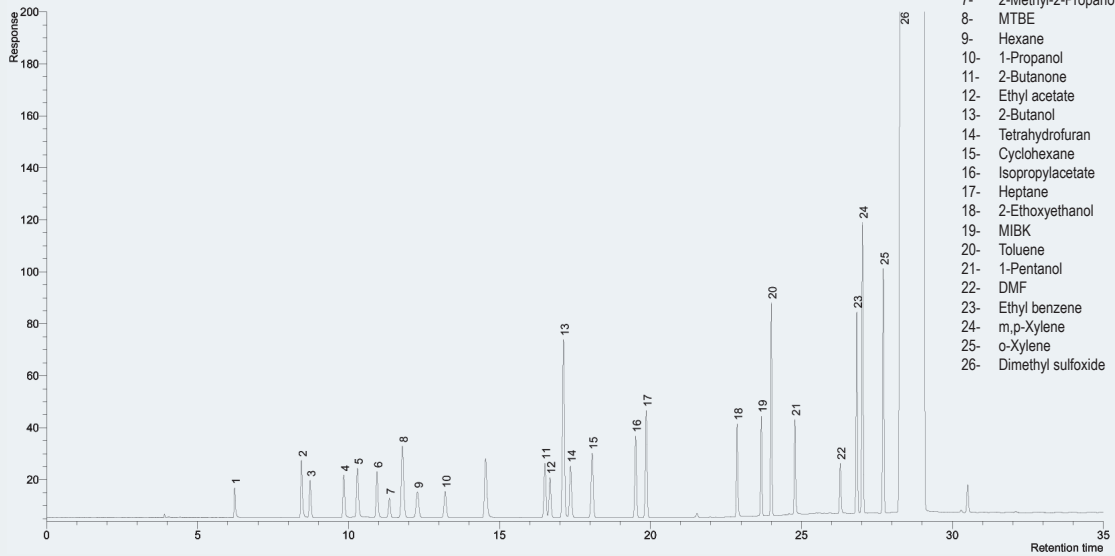
TKG 1231

**RESIDUAL SOLVENTS IN DMSO**

Column: **TRB-624**, P/N TR-601863  
 Size: 60m x 0.32mm x 1.8µm  
 Injection: 1µL mixture of solvents (500 ppm in DMSO), split 1:50, 260°C  
 Carrier gas: He, constant pressure 16 psi  
 Program Temperature: 40°C(5 min) @ 2°C/min to 60°C @ 9°C/min to 115°C @ 35°C/min to 220°C(15min)  
 Detector: FID, 260°C

**Peak Name**

- 1- Methanol
- 2- Ethanol
- 3- Acetone
- 4- 2-Propanol
- 5- Acetonitrile
- 6- Methylene chloride
- 7- 2-Methyl-2-Propanol
- 8- MTBE
- 9- Hexane
- 10- 1-Propanol
- 11- 2-Butanone
- 12- Ethyl acetate
- 13- 2-Butanol
- 14- Tetrahydrofuran
- 15- Cyclohexane
- 16- Isopropylacetate
- 17- Heptane
- 18- 2-Ethoxyethanol
- 19- MIBK
- 20- Toluene
- 21- 1-Pentanol
- 22- DMF
- 23- Ethyl benzene
- 24- m,p-Xylene
- 25- o-Xylene
- 26- Dimethyl sulfoxide



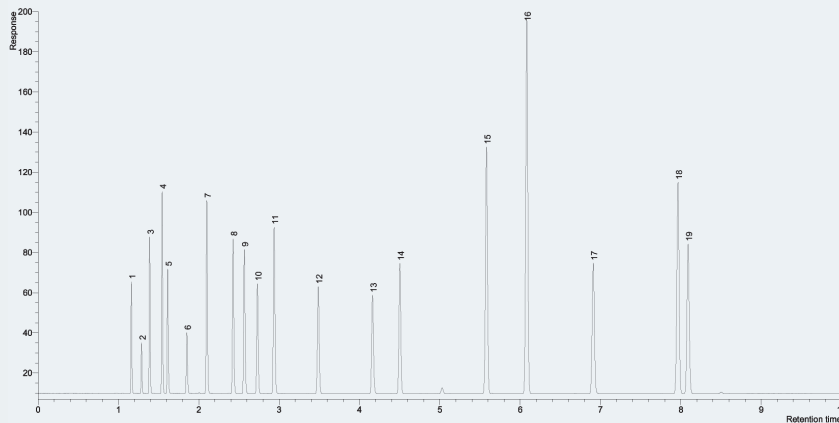
TKG 1232

**COMMON INDUSTRIAL SOLVENTS**

Column: **TRB-1**, P/N TR-111033  
 Size: 30m x 0.32mm x 1.0µm  
 Injection: 0.01µL Neat solvents, split 1:300, 200°C  
 Carrier Gas: H2, 7 psi  
 Program temperature: 30°C @ 8°C/min to 140°C(2min)  
 Detector: FID, 200°C

**Peaks**

- 1- Methanol
- 2- Methyl formate
- 3- Ethanol
- 4- Acetone
- 5- Isopropanol
- 6- Dichloromethane
- 7- n-Propanol
- 8- Methyl ethyl ketone
- 9- Sec-Butanol
- 10- Ethyl acetate
- 11- Isobutanol
- 12- Isopropyl acetate
- 13- Nitropropane
- 14- 1,4-Dioxane
- 15- Toluene
- 16- Mesityl oxide
- 17- Diacetone alcohol
- 18- m-Xylene
- 19- Cyclohexanone



TKG 1234

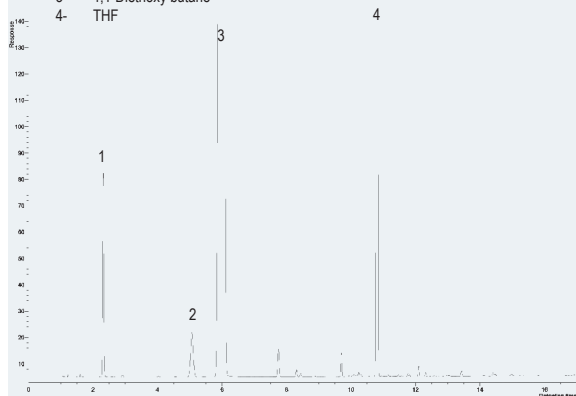
## REACTION PRODUCTS OF 1,1-DIETHOXY BUTANE

Column: **TRB-624**, P/N TR-603035  
 Size: 30m x 0.53mm x 3.0µm  
 Injection: 0.5 µl, split 1:5, 260°C  
 Carrier Gas: He, 6 psi  
 Program temperature: 40°C (6min) @ 30°C/min to 200°C (5min)  
 Detector: FID, 260°C

Chromatogram provided by Ion Aguirre from *Escuela Superior de Ingeniería de Bilbao (Spain)*

### Peak Name

- 1- Butanal
- 2- Ethanol
- 3- 1,1-Diethoxy butane
- 4- THF



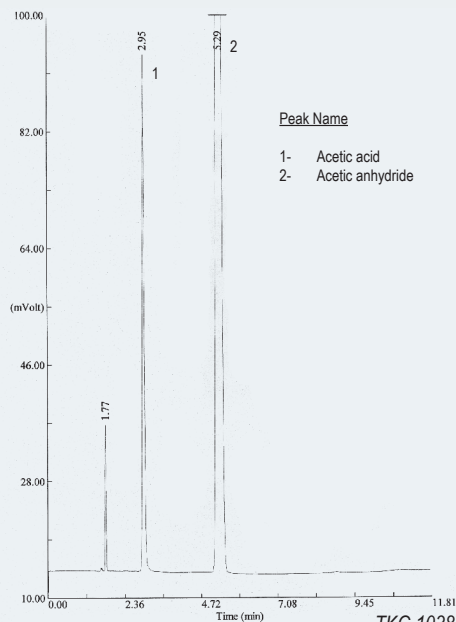
TKG 1238

## SEPARATION OF ACETIC ACID AND ACETIC ANHYDRIDE

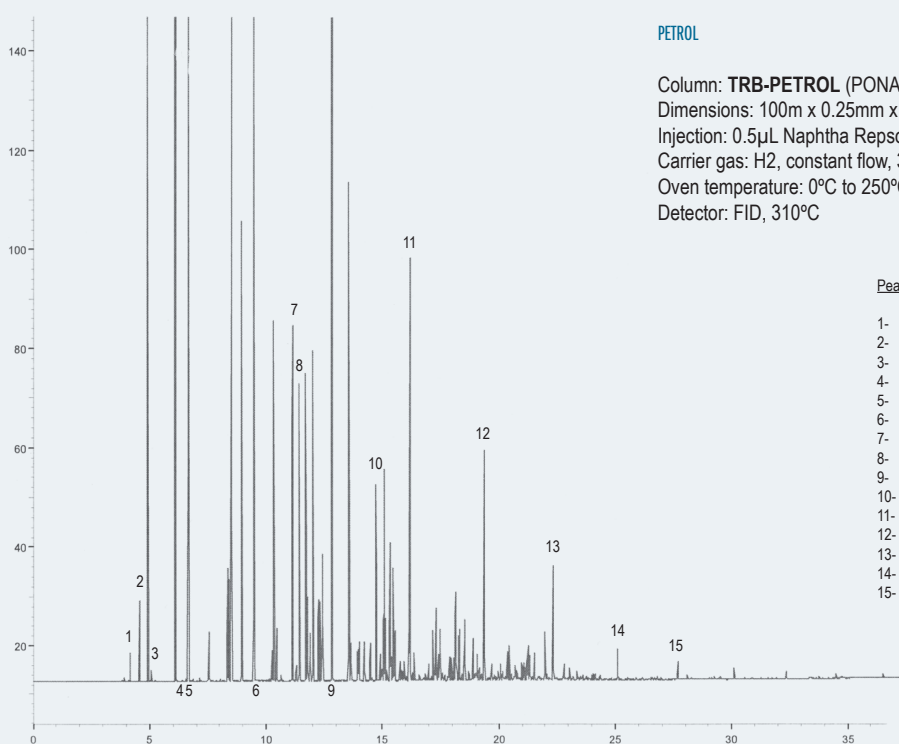
Column: **TRB-1**, P/N TR-115035  
 Dimensions: 30m x 0.53mm x 5.0 µm  
 Injection: wet needle (solvent mixture), split 1:100, 200°C  
 Carrier gas: H<sub>2</sub>, constant pressure 3 psi (20.7 KPa).  
 Oven program: 90°C  
 Detector: FID, 260°C

### Peak Name

- 1- Acetic acid
- 2- Acetic anhydride



TKG 1038



## PETROL

Column: **TRB-PETROL** (PONA Column), P/N TR-110592  
 Dimensions: 100m x 0.25mm x 0.50µm  
 Injection: 0.5µL Naphtha Repsol, split 1:250, 250°C  
 Carrier gas: H<sub>2</sub>, constant flow, 30 psi (206.7 KPa)  
 Oven temperature: 0°C to 250°C  
 Detector: FID, 310°C

### Peak Name

- 1- Propane
- 2- Isobutane
- 3- Butane
- 4- Isopentane
- 5- n-Pentane
- 6- n-Hexane
- 7- Benzene
- 8- Cyclohexane
- 9- n-Heptane
- 10- Toluene
- 11- n-Octane
- 12- n-Nonane
- 13- n-Decane
- 14- n-Undecane
- 15- n-Dodecane

TKG 1267