



Petrochemical Standards in accordance to ASTM

Petrochemistry Standards



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Petrochemical Standards

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Reagecon has developed an extensive offering of Standards and Reference Materials targeted at the Petrochemical Industry.

These industries Include but are not limited to :

- Asphalt
- Biofuels
- Coke
- Fuel Oil
- Gasoline
- Kerosene
- Lubricating Oils
- Naphtha
- Other Petroleum
- Waxes



The standards manufactured by Reagecon listed in this catalogue are in accordance to the following ASTM Methods

ASTM D445 Standard Practice for Basic Calibration of Master Viscometers and Viscosity Oil Standards

ASTM D97 Standard Test Method for Acid Number of Petroleum Products by Potentiometric Titration.

ASTM D97A Standard Test Method for Base Number of Petroleum Products by Potentiometric Titration.

ASTM D1500 Standard Test Method for ASTM Color of Petroleum Products.

ASTM D1209 Standard Test Method for Color of Clear Liquids .

ASTM D6166-12 Standard Test Method for Color of Pine Chemicals and Related Products.

ASTM D1480-12 Density Standards in Accordance to

ASTM D4052-09 Density Standards in Accordance to

ASTM Methods P0030, P0031, P0032, P0033, P0034 and P0035.

ASTM D2162 Standard Practice for Basic Calibration of Master Viscometers and Viscosity Oil Standards

| Product No. | Description | Pack Size |
|--------------|--|-----------|
| REVIS-N.4 | Viscosity Standards(cSt) reads; 0.47@20°C, 0.45@25°C, 0.41@37.78°C, 0.4@40°C | 500ml |
| REVIS-N.8 | Viscosity Standards(cSt) reads; 0.74@20°C, 0.7@25°C, 0.61@37.78°C, 0.6@40°C | 500ml |
| REVIS-N1.0 | Viscosity Standards(cSt) reads; 1.3@20°C, 1.2@25°C, 1@37.78°C, 0.97@40°C, 0.87@50°C | 500ml |
| REVIS-N2 | Viscosity Standards(cSt) reads; 2.9@20°C, 2.6@25°C, 2.1@37.78°C, 2@40°C, 1.7@50°C | 500ml |
| REVIS-S3 | Viscosity Standards(cSt) reads; 4.4@20°C, 3.9@25°C, 3@37.78°C, 2.9@40°C, 2.4@50°C | 500ml |
| REVIS-N4 | Viscosity Standards(cSt) reads; 6.7@20°C, 5.8@25°C, 4.2@37.78°C, 4@40°C, 3.2@50°C | 500ml |
| REVIS-S6 | Viscosity Standards(cSt) reads; 10@20°C, 8.7@25°C, 6@37.78°C, 5.7@40°C, 4.4@50°C | 500ml |
| REVIS-N7.5 | Viscosity Standards(cSt) reads; 14@20°C, 12@25°C, 8@37.78°C, 7.5@40°C, 5.8@50°C | 500ml |
| REVIS-N10 | Viscosity Standards(cSt) reads; 20@20°C, 16@25°C, 11@37.78°C, 10@40°C, 7.5@50°C | 500ml |
| REVIS-N14 | Viscosity Standards(cSt) reads; 30@20°C, 24@25°C, 15@37.78°C, 14@40°C, 10@50°C | 500ml |
| REVIS-S20 | Viscosity Standards(cSt) reads; 43@20°C, 34@25°C, 20@37.78°C, 18@40°C, 13@50°C | 500ml |
| REVIS-N26 | Viscosity Standards(cSt) reads; 59@20°C, 47@25°C, 27@37.78°C, 25@40°C, 18@50°C | 500ml |
| REVIS-N35 | Viscosity Standards(cSt) reads; 88@20°C, 66@25°C, 35@37.78°C, 32@40°C, 21@50°C | 500ml |
| REVIS-N44 | Viscosity Standards(cSt) reads; 110@20°C, 87@25°C, 48@37.78°C, 44@40°C, 30@50°C | 500ml |
| REVIS-S60 | Viscosity Standards(cSt) reads; 160@20°C, 120@25°C, 60@37.78°C, 54@40°C, 35@50°C | 500ml |
| REVIS-N75 | Viscosity Standards(cSt) reads; 210@20°C, 160@25°C, 83@37.78°C, 75@40°C, 50@50°C | 500ml |
| REVIS-N100 | Viscosity Standards(cSt) reads; 320@20°C, 230@25°C, 110@37.78°C, 98@40°C, 61@50°C | 500ml |
| REVIS-N140 | Viscosity Standards(cSt) reads; 400@20°C, 300@25°C, 160@37.78°C, 140@40°C, 90@50°C | 500ml |
| REVIS-S200 | Viscosity Standards(cSt) reads; 550@20°C, 400@25°C, 200@37.78°C, 180@40°C, 110@50°C | 500ml |
| REVIS-N250 | Viscosity Standards(cSt) reads; 790@20°C, 580@25°C, 280@37.78°C, 250@40°C, 160@50°C | 500ml |
| REVIS-N350 | Viscosity Standards(cSt) reads; 980@20°C, 710@25°C, 340@37.78°C, 310@40°C, 190@50°C | 500ml |
| REVIS-N415 | Viscosity Standards(cSt) reads; 1400@20°C, 1000@25°C, 470@37.78°C, 410@40°C, 250@50°C | 500ml |
| REVIS-S600 | Viscosity Standards(cSt) reads; 1800@20°C, 1300@25°C, 590@37.78°C, 520@40°C, 310@50°C | 500ml |
| REVIS-N750 | Viscosity Standards(cSt) reads; 2600@20°C, 1800@25°C, 850@37.78°C, 750@40°C, 450@50°C | 500ml |
| REVIS-N1000 | Viscosity Standards(cSt) reads; 3300@20°C, 2300@25°C, 1100@37.78°C, 940@40°C, 560@50°C | 500ml |
| REVIS-N1400 | Viscosity Standards(cSt) reads; 4900@20°C, 3500@25°C, 1600@37.78°C, 1400@40°C, 830@50°C | 500ml |
| REVIS-S2000 | Viscosity Standards(cSt) reads; 8400@20°C, 5300@25°C, 1900@37.78°C, 1600@40°C, 810@50°C | 500ml |
| REVIS-N2500 | Viscosity Standards(cSt) reads; 7900@20°C, 5800@25°C, 2800@37.78°C, 2500@40°C, 1500@50°C | 500ml |
| REVIS-N4000 | Viscosity Standards(cSt) reads; 19000@20°C, 12000@25°C, 4000@37.78°C, 3400@40°C, 1700@50°C | 500ml |
| REVIS-N5100 | Viscosity Standards(cSt) reads; 28000@20°C, 17000@25°C, 6000@37.78°C, 5100@40°C, 2500@50°C | 500ml |
| REVIS-S8000 | Viscosity Standards(cSt) reads; 41000@20°C, 25000@25°C, 8000@37.78°C, 6700@40°C, 3200@50°C | 500ml |
| REVIS-N10200 | Viscosity Standards(cSt) reads; 58000@20°C, 36000@25°C, 10,000@40°C, 4900@50°C | 500ml |
| REVIS-N15000 | Viscosity Standards(cSt) reads; 77000@20°C, 47000@25°C, 13000@40°C, 6100@50°C | 500ml |
| REVIS-N18000 | Viscosity Standards(cSt) reads; 10,0000@20°C, 64000@25°C, 18000@40°C, 8500@50°C | 500ml |
| REVIS-S30000 | Viscosity Standards(cSt) reads; 79000@25°C, 28000@37.78°C, 23000@40°C, 11000@50°C | 500ml |

ASTM D664 Acid Number of Petroleum Products by Potentiometric Titration.

| Product No. | Description | Pack Size |
|-------------|---|-----------|
| EFSLIET | Electrode Filling Solution Non-aqueous filling solution 1mol/litre Lithium chloride (LiCl), dissolv | 100ml |
| 104025 | pHBuffer Solution pH4.00 ±0.01 @25°C | 1l |
| 107025 | pHBuffer Solution pH7.00 ±0.01 @25°C | 1l |
| 111025 | pHBuffer Solution pH11.00 ±0.05 @25°C | 1l |
| PH20101 | 0.1M Hydrochloric Acid in Propan-2-ol | 1l |
| PH201005 | 0.1M Hydrochloric Acid in Propan-2-ol | 500ml |
| KOH01F | Non Aqueous Titrant 0.1N Potassium Hydroxide in 2 Propanol | 1l |
| KOH01H | 0.1M Potassium Hydroxide in propan-2-ol | 500ml |
| KOH001F | 0.01M Potassium Hydroxide in propan-2-ol | 1l |
| KOH001H | 0.01M Potassium Hydroxide in propan-2-ol | 500ml |
| TANSOLVF | TAN Titration solvent. Per litre: 500mls toluene, 495mls propan-2-ol, 5mls water | 1l |

TAN Standards: All in a Synthetic Base Oil Matrix.

| Product No. | Description | Pack Size |
|-------------|---|-----------|
| RETAN0.1 | Total Acid Number TAN standard, 0.1mg/g KOH | 50g |
| RETAN0.5 | Total Acid Number TAN standard, 0.5mg/g KOH | 50g |
| RETAN1.0 | Total Acid Number TAN standard, 1.0mg/g KOH | 50g |
| RETAN1.5 | Total Acid Number TAN standard, 1.5mg/g KOH | 50g |
| RETAN2.0 | Total Acid Number TAN standard, 2.0mg/g KOH | 50g |
| RETAN2.5 | Total Acid Number TAN standard, 2.5mg/g KOH | 50g |
| RETAN3.0 | Total Acid Number TAN standard, 3.0mg/g KOH | 50g |
| RETAN4.5 | Total Acid Number TAN standard, 4.5mg/g KOH | 50g |

Reagents, Titrants & Standards for ASTM D2896 Base Number of Petroleum Products by Potentiometric Titration.

| Product No. | Description | Pack Size |
|-------------|--|-----------|
| P2010F | Analytical Volumetric Solution Perchloric Acid in Acetic Acid 0.1N, 0.1M | 1l |
| P2010H | Analytical Volumetric Solution Perchloric Acid in Acetic Acid 0.1N, 0.1M | 500ml |
| EFSNACLO4 | Electrode Filling Solution Saturated Sodium Perchlorate in Glacial Acetic Acid | 100ml |
| TBNSOLV1F | TBN Titration solvent - 2:1 chlorobenzene and glacial acetic acid | 1l |
| NAAC010F | 0.1N sodium acetate in glacial acetic acid | 1l |
| 104025 | pHBuffer Solution pH4.00 ±0.01 @25°C | 1l |
| 107025 | pHBuffer Solution pH7.00 ±0.01 @25°C | 1l |
| 111025 | pHBuffer Solution pH11.00 ±0.05 @25°C | 1l |
| TBNSOLV2F | TBN Titration solvent - 0.4M tetraethylammonium bromide in ethylene glycol | 1l |

TBN Standards: All in a Synthetic Base Oil Matrix.

| Product No. | Description | Pack Size |
|-------------|---|-----------|
| RETBN1 | Total Base Number TBN Standard, 1.0mg/g KOH | 50g |
| RETBN3 | Total Base Number TBN Standard, 3.0mg/g KOH | 50g |
| RETBN6 | Total Base Number TBN Standard, 6.0mg/g KOH | 50g |
| RETBN10 | Total Base Number TBN Standard, 10mg/g KOH | 50g |
| RETBN15 | Total Base Number TBN Standard, 15mg/g KOH | 50g |
| RETBN30 | Total Base Number TBN Standard, 30mg/g KOH | 50g |
| RETBN40 | Total Base Number TBN Standard, 40mg/g KOH | 50g |
| RETBN70 | Total Base Number TBN Standard, 70mg/g KOH | 50g |

ASTM D1500 Standard Test Method for ASTM Color of Petroleum Products (ASTM Color Scale)

| Product No. | Description | Pack Size |
|-------------|--------------------------------|-----------|
| ASTMA101 | Colour Standard ASTM Sample A1 | 100ml |
| ASTMA105 | Colour Standard ASTM Sample A1 | 500ml |
| ASTMA301 | Colour Standard ASTM Sample A3 | 100ml |
| ASTMA305 | Colour Standard ASTM Sample A3 | 500ml |
| ASTMA501 | Colour Standard ASTM Sample A5 | 100ml |
| ASTMA505 | Colour Standard ASTM Sample A5 | 500ml |
| ASTMA701 | Colour Standard ASTM Sample A7 | 100ml |
| ASTMA705 | Colour Standard ASTM Sample A7 | 500ml |

ASTM D1209 Standard Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)

| Product No. | Description | Pack Size |
|-------------|---|-----------|
| HAZ0 | Colour Standard Platinum Cobalt 0 (0 Hazen units) | 1l |
| HAZ5 | Colour Standard Platinum Cobalt 5 (5 Hazen units) | 1l |
| HAZ10 | Colour Standard Platinum Cobalt 10 (10 Hazen units) | 1l |
| HAZ25 | Colour Standard Platinum Cobalt 25 (25 Hazen units) | 1l |
| HAZ40 | Colour Standard Platinum Cobalt 40 (40 Hazen units) | 1l |
| HAZ50 | Colour Standard Platinum Cobalt 50 (50 Hazen units) | 1l |
| HAZ80 | Colour Standard Platinum Cobalt 80 (80 Hazen units) | 1l |
| HAZ100 | Colour Standard Platinum Cobalt 100 (100 Hazen units) | 1l |
| HAZ250 | Colour Standard Platinum Cobalt 250 (250 Hazen units) | 1l |
| HAZ500 | Colour Standard Platinum Cobalt 500 (500 Hazen units) | 1l |

ASTM D6166 Standard Test Method for Color of Pine Chemicals and Related Products (Instrumental Determination of Gardner Color)

| Product No. | Description | Pack Size |
|-------------|----------------------------|-----------|
| GARD02 | Colour Standard Gardner 2 | 500ml |
| GARD021 | Colour Standard Gardner 2 | 100ml |
| GARD04 | Colour Standard Gardner 4 | 500ml |
| GARD041 | Colour Standard Gardner 4 | 100ml |
| GARD06 | Colour Standard Gardner 6 | 500ml |
| GARD061 | Colour Standard Gardner 6 | 100ml |
| GARD08 | Colour Standard Gardner 8 | 500ml |
| GARD081 | Colour Standard Gardner 8 | 100ml |
| GARD10 | Colour Standard Gardner 10 | 500ml |
| GARD101 | Colour Standard Gardner 10 | 100ml |
| GARD12 | Colour Standard Gardner 12 | 500ml |
| GARD121 | Colour Standard Gardner 12 | 100ml |
| GARD14 | Colour Standard Gardner 14 | 500ml |
| GARD141 | Colour Standard Gardner 14 | 100ml |
| GARD16 | Colour Standard Gardner 16 | 500ml |
| GARD161 | Colour Standard Gardner 16 | 100ml |

Density Standards in Accordance to ASTM D1480-12

| Product No. | Description | Pack Size |
|-------------|-----------------------------------|-----------|
| DEN15010PY | Density Standard 0.6960g/ml @15°C | 100ml |
| DEN15020PY | Density Standard 0.7073g/ml @15°C | 100ml |
| DEN15030PY | Density Standard 0.7184g/ml @15°C | 100ml |
| DEN15040PY | Density Standard 0.7298g/ml @15°C | 100ml |
| DEN15050PY | Density Standard 0.7411g/ml @15°C | 100ml |
| DEN15060PY | Density Standard 0.7524g/ml @15°C | 100ml |
| DEN15070PY | Density Standard 0.7721g/ml @15°C | 100ml |
| DEN15080PY | Density Standard 0.7933g/ml @15°C | 100ml |
| DEN15090PY | Density Standard 0.8168g/ml @15°C | 100ml |
| DEN15100PY | Density Standard 0.8428g/ml @15°C | 100ml |
| DEN15110PY | Density Standard 0.8715g/ml @15°C | 100ml |
| DEN15120PY | Density Standard 0.9135g/ml @15°C | 100ml |
| DEN15130PY | Density Standard 0.9514g/ml @15°C | 100ml |
| DEN15140PY | Density Standard 1.0040g/ml @15°C | 100ml |
| DEN15150PY | Density Standard 1.0337g/ml @15°C | 100ml |
| DEN15160PY | Density Standard 1.0828g/ml @15°C | 100ml |
| DEN15170PY | Density Standard 1.1661g/ml @15°C | 100ml |
| DEN15180PY | Density Standard 1.2498g/ml @15°C | 100ml |
| DEN15190PY | Density Standard 1.3318g/ml @15°C | 100ml |
| DEN15200PY | Density Standard 1.4152g/ml @15°C | 100ml |

| Product No. | Description | Pack Size |
|-------------|-----------------------------------|-----------|
| DEN15210PY | Density Standard 1.5820g/ml @15°C | 100ml |
| DEN15220PY | Density Standard 1.7495g/ml @15°C | 100ml |
| DEN15230PY | Density Standard 1.9171g/ml @15°C | 100ml |
| DEN15240PY | Density Standard 2.0846g/ml @15°C | 100ml |
| DEN15250PY | Density Standard 2.2568g/ml @15°C | 100ml |
| DEN15260PY | Density Standard 2.4261g/ml @15°C | 100ml |
| DEN15270PY | Density Standard 2.6055g/ml @15°C | 100ml |
| DEN15280PY | Density Standard 2.7588g/ml @15°C | 100ml |
| DEN15290PY | Density Standard 2.9418g/ml @15°C | 100ml |
| DEN15300PY | Density Standard 3.1140g/ml @15°C | 100ml |
| DEN20010PY | Density Standard 0.6919g/ml @20°C | 100ml |
| DEN20020PY | Density Standard 0.7033g/ml @20°C | 100ml |
| DEN20030PY | Density Standard 0.7148g/ml @20°C | 100ml |
| DEN20040PY | Density Standard 0.7261g/ml @20°C | 100ml |
| DEN20050PY | Density Standard 0.7374g/ml @20°C | 100ml |
| DEN20060PY | Density Standard 0.7488g/ml @20°C | 100ml |
| DEN20070PY | Density Standard 0.7683g/ml @20°C | 100ml |
| DEN20080PY | Density Standard 0.7893g/ml @20°C | 100ml |
| DEN20090PY | Density Standard 0.8126g/ml @20°C | 100ml |
| DEN20100PY | Density Standard 0.8384g/ml @20°C | 100ml |
| DEN20110PY | Density Standard 0.8668g/ml @20°C | 100ml |
| DEN20120PY | Density Standard 0.9098g/ml @20°C | 100ml |
| DEN20130PY | Density Standard 0.9476g/ml @20°C | 100ml |
| DEN20140PY | Density Standard 1.0005g/ml @20°C | 100ml |
| DEN20150PY | Density Standard 1.0301g/ml @20°C | 100ml |
| DEN20160PY | Density Standard 1.0792g/ml @20°C | 100ml |
| DEN20170PY | Density Standard 1.1651g/ml @20°C | 100ml |
| DEN20180PY | Density Standard 1.2486g/ml @20°C | 100ml |
| DEN20190PY | Density Standard 1.3304g/ml @20°C | 100ml |
| DEN20200PY | Density Standard 1.4136g/ml @20°C | 100ml |
| DEN20210PY | Density Standard 1.5799g/ml @20°C | 100ml |
| DEN20220PY | Density Standard 1.7470g/ml @20°C | 100ml |
| DEN20230PY | Density Standard 1.9141g/ml @20°C | 100ml |
| DEN20240PY | Density Standard 2.0812g/ml @20°C | 100ml |
| DEN20250PY | Density Standard 2.2531g/ml @20°C | 100ml |
| DEN20260PY | Density Standard 2.4219g/ml @20°C | 100ml |
| DEN20270PY | Density Standard 2.6011g/ml @20°C | 100ml |
| DEN20280PY | Density Standard 2.7542g/ml @20°C | 100ml |
| DEN20290PY | Density Standard 2.9370g/ml @20°C | 100ml |
| DEN20300PY | Density Standard 3.1096g/ml @20°C | 100ml |
| DEN25010PY | Density Standard 0.6878g/ml @25°C | 100ml |
| DEN25020PY | Density Standard 0.6993g/ml @25°C | 100ml |
| DEN25030PY | Density Standard 0.7111g/ml @25°C | 100ml |
| DEN25040PY | Density Standard 0.7223g/ml @25°C | 100ml |
| DEN25050PY | Density Standard 0.7337g/ml @25°C | 100ml |

| Product No. | Description | Pack Size |
|-------------|-----------------------------------|-----------|
| DEN25060PY | Density Standard 0.7452g/ml @25°C | 100ml |
| DEN25070PY | Density Standard 0.7645g/ml @25°C | 100ml |
| DEN25080PY | Density Standard 0.7853g/ml @25°C | 100ml |
| DEN25090PY | Density Standard 0.8084g/ml @25°C | 100ml |
| DEN25100PY | Density Standard 0.8340g/ml @25°C | 100ml |
| DEN25110PY | Density Standard 0.8622g/ml @25°C | 100ml |
| DEN25120PY | Density Standard 0.9060g/ml @25°C | 100ml |
| DEN25130PY | Density Standard 0.9438g/ml @25°C | 100ml |
| DEN25140PY | Density Standard 0.9969g/ml @25°C | 100ml |
| DEN25150PY | Density Standard 1.0265g/ml @25°C | 100ml |
| DEN25160PY | Density Standard 1.0755g/ml @25°C | 100ml |
| DEN25170PY | Density Standard 1.1639g/ml @25°C | 100ml |
| DEN25180PY | Density Standard 1.2471g/ml @25°C | 100ml |
| DEN25190PY | Density Standard 1.3287g/ml @25°C | 100ml |
| DEN25200PY | Density Standard 1.4117g/ml @25°C | 100ml |
| DEN25210PY | Density Standard 1.5775g/ml @25°C | 100ml |
| DEN25220PY | Density Standard 1.7441g/ml @25°C | 100ml |
| DEN25230PY | Density Standard 1.9108g/ml @25°C | 100ml |
| DEN25240PY | Density Standard 2.0775g/ml @25°C | 100ml |
| DEN25250PY | Density Standard 2.2490g/ml @25°C | 100ml |
| DEN25260PY | Density Standard 2.4175g/ml @25°C | 100ml |
| DEN25270PY | Density Standard 2.5964g/ml @25°C | 100ml |
| DEN25280PY | Density Standard 2.7493g/ml @25°C | 100ml |
| DEN25290PY | Density Standard 2.9319g/ml @25°C | 100ml |
| DEN25300PY | Density Standard 3.1043g/ml @25°C | 100ml |
| DEN40010PY | Density Standard 0.6752g/ml @40°C | 100ml |
| DEN40020PY | Density Standard 0.6872g/ml @40°C | 100ml |
| DEN40030PY | Density Standard 0.6997g/ml @40°C | 100ml |
| DEN40040PY | Density Standard 0.7109g/ml @40°C | 100ml |
| DEN40050PY | Density Standard 0.7226g/ml @40°C | 100ml |
| DEN40060PY | Density Standard 0.7343g/ml @40°C | 100ml |
| DEN40070PY | Density Standard 0.7531g/ml @40°C | 100ml |
| DEN40080PY | Density Standard 0.7733g/ml @40°C | 100ml |
| DEN40090PY | Density Standard 0.7958g/ml @40°C | 100ml |
| DEN40100PY | Density Standard 0.8207g/ml @40°C | 100ml |
| DEN40110PY | Density Standard 0.8482g/ml @40°C | 100ml |
| DEN40120PY | Density Standard 0.8945g/ml @40°C | 100ml |
| DEN40130PY | Density Standard 0.9323g/ml @40°C | 100ml |
| DEN40140PY | Density Standard 0.9857g/ml @40°C | 100ml |
| DEN40150PY | Density Standard 1.0152g/ml @40°C | 100ml |
| DEN40160PY | Density Standard 1.0642g/ml @40°C | 100ml |
| DEN40170PY | Density Standard 1.1581g/ml @40°C | 100ml |
| DEN40180PY | Density Standard 1.2408g/ml @40°C | 100ml |
| DEN40190PY | Density Standard 1.3217g/ml @40°C | 100ml |
| DEN40200PY | Density Standard 1.4039g/ml @40°C | 100ml |

| Product No. | Description | Pack Size |
|-------------|-----------------------------------|-----------|
| DEN40210PY | Density Standard 1.5685g/ml @40°C | 100ml |
| DEN40220PY | Density Standard 1.7339g/ml @40°C | 100ml |
| DEN40230PY | Density Standard 1.8994g/ml @40°C | 100ml |
| DEN40240PY | Density Standard 2.0649g/ml @40°C | 100ml |
| DEN40250PY | Density Standard 2.2352g/ml @40°C | 100ml |
| DEN40260PY | Density Standard 2.4028g/ml @40°C | 100ml |
| DEN40270PY | Density Standard 2.5807g/ml @40°C | 100ml |
| DEN40280PY | Density Standard 2.7329g/ml @40°C | 100ml |
| DEN40290PY | Density Standard 2.9132g/ml @40°C | 100ml |
| DEN40300PY | Density Standard 3.0852g/ml @40°C | 100ml |
| DEN50010PY | Density Standard 0.6668g/ml @50°C | 100ml |
| DEN50020PY | Density Standard 0.6791g/ml @50°C | 100ml |
| DEN50030PY | Density Standard 0.6917g/ml @50°C | 100ml |
| DEN50040PY | Density Standard 0.7033g/ml @50°C | 100ml |
| DEN50050PY | Density Standard 0.7151g/ml @50°C | 100ml |
| DEN50060PY | Density Standard 0.7269g/ml @50°C | 100ml |
| DEN50070PY | Density Standard 0.7454g/ml @50°C | 100ml |
| DEN50080PY | Density Standard 0.7653g/ml @50°C | 100ml |
| DEN50090PY | Density Standard 0.7873g/ml @50°C | 100ml |
| DEN50100PY | Density Standard 0.8118g/ml @50°C | 100ml |
| DEN50110PY | Density Standard 0.8387g/ml @50°C | 100ml |
| DEN50120PY | Density Standard 0.8868g/ml @50°C | 100ml |
| DEN50130PY | Density Standard 0.9245g/ml @50°C | 100ml |
| DEN50140PY | Density Standard 0.9777g/ml @50°C | 100ml |
| DEN50150PY | Density Standard 1.0073g/ml @50°C | 100ml |
| DEN50160PY | Density Standard 1.0562g/ml @50°C | 100ml |
| DEN50170PY | Density Standard 1.1512g/ml @50°C | 100ml |
| DEN50180PY | Density Standard 1.2346g/ml @50°C | 100ml |
| DEN50190PY | Density Standard 1.3138g/ml @50°C | 100ml |
| DEN50200PY | Density Standard 1.3973g/ml @50°C | 100ml |
| DEN50210PY | Density Standard 1.5609g/ml @50°C | 100ml |
| DEN50220PY | Density Standard 1.7257g/ml @50°C | 100ml |
| DEN50230PY | Density Standard 1.8904g/ml @50°C | 100ml |
| DEN50240PY | Density Standard 2.0551g/ml @50°C | 100ml |
| DEN50250PY | Density Standard 2.2247g/ml @50°C | 100ml |
| DEN50260PY | Density Standard 2.3916g/ml @50°C | 100ml |
| DEN50270PY | Density Standard 2.5689g/ml @50°C | 100ml |
| DEN50280PY | Density Standard 2.7207g/ml @50°C | 100ml |
| DEN50290PY | Density Standard 2.9005g/ml @50°C | 100ml |
| DEN50300PY | Density Standard 3.0721g/ml @50°C | 100ml |
| DEN60010PY | Density Standard 0.6582g/ml @60°C | 100ml |
| DEN60020PY | Density Standard 0.6708g/ml @60°C | 100ml |
| DEN60030PY | Density Standard 0.6835g/ml @60°C | 100ml |
| DEN60040PY | Density Standard 0.6955g/ml @60°C | 100ml |

| Product No. | Description | Pack Size |
|-------------|-----------------------------------|-----------|
| DEN60050PY | Density Standard 0.7076g/ml @60°C | 100ml |
| DEN60060PY | Density Standard 0.7196g/ml @60°C | 100ml |
| DEN60070PY | Density Standard 0.7376g/ml @60°C | 100ml |
| DEN60080PY | Density Standard 0.7572g/ml @60°C | 100ml |
| DEN60090PY | Density Standard 0.7788g/ml @60°C | 100ml |
| DEN60100PY | Density Standard 0.8027g/ml @60°C | 100ml |
| DEN60110PY | Density Standard 0.8292g/ml @60°C | 100ml |
| DEN60120PY | Density Standard 0.8790g/ml @60°C | 100ml |
| DEN60130PY | Density Standard 0.9166g/ml @60°C | 100ml |
| DEN60140PY | Density Standard 0.9695g/ml @60°C | 100ml |
| DEN60150PY | Density Standard 0.9990g/ml @60°C | 100ml |
| DEN60160PY | Density Standard 1.0478g/ml @60°C | 100ml |
| DEN80010PY | Density Standard 0.6407g/ml @80°C | 100ml |
| DEN80020PY | Density Standard 0.6538g/ml @80°C | 100ml |
| DEN80030PY | Density Standard 0.6661g/ml @80°C | 100ml |
| DEN80040PY | Density Standard 0.6798g/ml @80°C | 100ml |
| DEN80050PY | Density Standard 0.6923g/ml @80°C | 100ml |
| DEN80060PY | Density Standard 0.7047g/ml @80°C | 100ml |
| DEN80070PY | Density Standard 0.7220g/ml @80°C | 100ml |
| DEN80080PY | Density Standard 0.7407g/ml @80°C | 100ml |
| DEN80090PY | Density Standard 0.7614g/ml @80°C | 100ml |
| DEN80100PY | Density Standard 0.7844g/ml @80°C | 100ml |
| DEN80110PY | Density Standard 0.8098g/ml @80°C | 100ml |
| DEN80120PY | Density Standard 0.8629g/ml @80°C | 100ml |
| DEN80130PY | Density Standard 0.9006g/ml @80°C | 100ml |
| DEN80140PY | Density Standard 0.9520g/ml @80°C | 100ml |
| DEN80150PY | Density Standard 0.9815g/ml @80°C | 100ml |
| DEN80160PY | Density Standard 1.0302g/ml @80°C | 100ml |



Density Standards in Accordance to ASTM D4052-09

| Product No. | Description | Pack Size |
|-------------|-----------------------------------|-----------|
| DEN15010 | Density Standard 0.6960g/ml @15°C | 100ml |
| DEN15020 | Density Standard 0.7073g/ml @15°C | 100ml |
| DEN15030 | Density Standard 0.7184g/ml @15°C | 100ml |
| DEN15040 | Density Standard 0.7298g/ml @15°C | 100ml |
| DEN15050 | Density Standard 0.7411g/ml @15°C | 100ml |
| DEN15060 | Density Standard 0.7524g/ml @15°C | 100ml |
| DEN15070 | Density Standard 0.7721g/ml @15°C | 100ml |
| DEN15080 | Density Standard 0.7933g/ml @15°C | 100ml |
| DEN15090 | Density Standard 0.8168g/ml @15°C | 100ml |
| DEN15100 | Density Standard 0.8428g/ml @15°C | 100ml |
| DEN15110 | Density Standard 0.8715g/ml @15°C | 100ml |
| DEN15120 | Density Standard 0.9135g/ml @15°C | 100ml |
| DEN15130 | Density Standard 0.9514g/ml @15°C | 100ml |
| DEN15140 | Density Standard 1.0040g/ml @15°C | 100ml |
| DEN15150 | Density Standard 1.0337g/ml @15°C | 100ml |
| DEN20010 | Density Standard 0.6919g/ml @20°C | 100ml |
| DEN20020 | Density Standard 0.7033g/ml @20°C | 100ml |
| DEN20030 | Density Standard 0.7148g/ml @20°C | 100ml |
| DEN20040 | Density Standard 0.7261g/ml @20°C | 100ml |
| DEN20050 | Density Standard 0.7374g/ml @20°C | 100ml |
| DEN20060 | Density Standard 0.7488g/ml @20°C | 100ml |
| DEN20070 | Density Standard 0.7683g/ml @20°C | 100ml |
| DEN20080 | Density Standard 0.7893g/ml @20°C | 100ml |
| DEN20090 | Density Standard 0.8126g/ml @20°C | 100ml |
| DEN20100 | Density Standard 0.8384g/ml @20°C | 100ml |
| DEN20110 | Density Standard 0.8668g/ml @20°C | 100ml |
| DEN20120 | Density Standard 0.9098g/ml @20°C | 100ml |
| DEN20130 | Density Standard 0.9476g/ml @20°C | 100ml |
| DEN20140 | Density Standard 1.0005g/ml @20°C | 100ml |
| DEN20150 | Density Standard 1.0301g/ml @20°C | 100ml |
| DEN25010 | Density Standard 0.6878g/ml @25°C | 100ml |
| DEN25020 | Density Standard 0.6993g/ml @25°C | 100ml |
| DEN25030 | Density Standard 0.7111g/ml @25°C | 100ml |
| DEN25040 | Density Standard 0.7223g/ml @25°C | 100ml |
| DEN25050 | Density Standard 0.7337g/ml @25°C | 100ml |
| DEN25060 | Density Standard 0.7452g/ml @25°C | 100ml |
| DEN25070 | Density Standard 0.7645g/ml @25°C | 100ml |
| DEN25080 | Density Standard 0.7853g/ml @25°C | 100ml |
| DEN25090 | Density Standard 0.8084g/ml @25°C | 100ml |
| DEN25100 | Density Standard 0.8340g/ml @25°C | 100ml |
| DEN25110 | Density Standard 0.8622g/ml @25°C | 100ml |
| DEN25120 | Density Standard 0.9060g/ml @25°C | 100ml |
| DEN25130 | Density Standard 0.9438g/ml @25°C | 100ml |
| DEN25140 | Density Standard 0.9969g/ml @25°C | 100ml |

| Product No. | Description | Pack Size |
|-------------|-----------------------------------|-----------|
| DEN25150 | Density Standard 1.0265g/ml @25°C | 100ml |
| DEN40010 | Density Standard 0.6752g/ml @40°C | 100ml |
| DEN40020 | Density Standard 0.6872g/ml @40°C | 100ml |
| DEN40030 | Density Standard 0.6997g/ml @40°C | 100ml |
| DEN40040 | Density Standard 0.7109g/ml @40°C | 100ml |
| DEN40050 | Density Standard 0.7226g/ml @40°C | 100ml |
| DEN40060 | Density Standard 0.7343g/ml @40°C | 100ml |
| DEN40070 | Density Standard 0.7531g/ml @40°C | 100ml |
| DEN40080 | Density Standard 0.7733g/ml @40°C | 100ml |
| DEN40090 | Density Standard 0.7958g/ml @40°C | 100ml |
| DEN40100 | Density Standard 0.8207g/ml @40°C | 100ml |
| DEN40110 | Density Standard 0.8482g/ml @40°C | 100ml |
| DEN40120 | Density Standard 0.8945g/ml @40°C | 100ml |
| DEN40130 | Density Standard 0.9323g/ml @40°C | 100ml |
| DEN40140 | Density Standard 0.9857g/ml @40°C | 100ml |
| DEN40150 | Density Standard 1.0152g/ml @40°C | 100ml |
| DEN50010 | Density Standard 0.6668g/ml @50°C | 100ml |
| DEN50020 | Density Standard 0.6791g/ml @50°C | 100ml |
| DEN50030 | Density Standard 0.6917g/ml @50°C | 100ml |
| DEN50040 | Density Standard 0.7033g/ml @50°C | 100ml |
| DEN50050 | Density Standard 0.7151g/ml @50°C | 100ml |
| DEN50060 | Density Standard 0.7269g/ml @50°C | 100ml |
| DEN50070 | Density Standard 0.7454g/ml @50°C | 100ml |
| DEN50080 | Density Standard 0.7653g/ml @50°C | 100ml |
| DEN50090 | Density Standard 0.7873g/ml @50°C | 100ml |
| DEN50100 | Density Standard 0.8118g/ml @50°C | 100ml |
| DEN50110 | Density Standard 0.8387g/ml @50°C | 100ml |
| DEN50120 | Density Standard 0.8868g/ml @50°C | 100ml |
| DEN50130 | Density Standard 0.9245g/ml @50°C | 100ml |
| DEN50140 | Density Standard 0.9777g/ml @50°C | 100ml |
| DEN50150 | Density Standard 1.0073g/ml @50°C | 100ml |
| DEN60010 | Density Standard 0.6582g/ml @60°C | 100ml |
| DEN60020 | Density Standard 0.6708g/ml @60°C | 100ml |
| DEN60030 | Density Standard 0.6835g/ml @60°C | 100ml |
| DEN60040 | Density Standard 0.6955g/ml @60°C | 100ml |
| DEN60050 | Density Standard 0.7076g/ml @60°C | 100ml |
| DEN60060 | Density Standard 0.7196g/ml @60°C | 100ml |
| DEN60070 | Density Standard 0.7376g/ml @60°C | 100ml |
| DEN60080 | Density Standard 0.7572g/ml @60°C | 100ml |
| DEN60090 | Density Standard 0.7788g/ml @60°C | 100ml |
| DEN60100 | Density Standard 0.8027g/ml @60°C | 100ml |
| DEN60110 | Density Standard 0.8292g/ml @60°C | 100ml |
| DEN60120 | Density Standard 0.8790g/ml @60°C | 100ml |
| DEN60130 | Density Standard 0.9166g/ml @60°C | 100ml |
| DEN60140 | Density Standard 0.9695g/ml @60°C | 100ml |

| Product No. | Description | Pack Size |
|-------------|-----------------------------------|-----------|
| DEN60150 | Density Standard 0.9990g/ml @60°C | 100ml |
| DEN80010 | Density Standard 0.6407g/ml @80°C | 100ml |
| DEN80020 | Density Standard 0.6538g/ml @80°C | 100ml |
| DEN80030 | Density Standard 0.6661g/ml @80°C | 100ml |
| DEN80040 | Density Standard 0.6798g/ml @80°C | 100ml |
| DEN80050 | Density Standard 0.6923g/ml @80°C | 100ml |
| DEN80060 | Density Standard 0.7047g/ml @80°C | 100ml |
| DEN80070 | Density Standard 0.7220g/ml @80°C | 100ml |
| DEN80080 | Density Standard 0.7407g/ml @80°C | 100ml |
| DEN80090 | Density Standard 0.7614g/ml @80°C | 100ml |
| DEN80100 | Density Standard 0.7844g/ml @80°C | 100ml |
| DEN80110 | Density Standard 0.8098g/ml @80°C | 100ml |
| DEN80120 | Density Standard 0.8629g/ml @80°C | 100ml |
| DEN80130 | Density Standard 0.9006g/ml @80°C | 100ml |
| DEN80140 | Density Standard 0.9520g/ml @80°C | 100ml |
| DEN80150 | Density Standard 0.9815g/ml @80°C | 100ml |
| DEN80160 | Density Standard 1.0302g/ml @80°C | 100ml |



PIANO-PONA-PNA

PIANO-PONA-PNA analysis is useful for fuel type differentiation as well as for estimating alteration by weathering and biodegradation. These complex mixes are prepared from materials of the highest available purity, accurate to four decimal places, and include a detailed data sheet on the formulation composition. The exact composition on a weight % basis for each analyte is provided on the certificate. This type of analysis is used by petrochemists to differentiate fuel types, biodegradation analysis and alteration of the fuel due to weathering. These products are suitable singly or in combination for analysis following ASTM Methods P0030, P0031, P0032, P0033, P0034 and P0035.

| Product No. | Product Name | Constituents | Conc/Property Value | Matrix | Pack Size | ASTM |
|----------------|--------------------|------------------------|---------------------|--------|-----------|-------|
| REPIANO-P | Piano Paraffins | N-Pentane | Varies per Batch | None | 1mL | D6279 |
| | | N-Hexane | | | | D6733 |
| | | N-Heptane | | | | D5134 |
| | | N-Octane | | | | D3710 |
| | | N-Nonane | | | | D2789 |
| | | N-Decane | | | | |
| | | N-Undecane | | | | |
| | | N-Dodecane | | | | |
| | | N-Tridecane | | | | |
| | | N-Tetradecane | | | | |
| | | N-Pentadecane | | | | |
| REPIANO-I | Piano Isoparaffins | Isopentane | Varies per Batch | None | 1mL | D6279 |
| | | 2,3-Dimethylbutane | | | | D6733 |
| | | 2-Methylpentane | | | | D5134 |
| | | 3-Methylpentane | | | | D3710 |
| | | 2,2-Dimethylpentane | | | | D2789 |
| | | 2,4-Dimethylpentane | | | | |
| | | 2,2,3-Trimethylbutane | | | | |
| | | 3,3-Dimethylpentane | | | | |
| | | 2-Methylhexane | | | | |
| | | 2,3-Dimethylpentane | | | | |
| | | 3-Methylhexane | | | | |
| | | 3-Ethylpentane | | | | |
| | | 2,2-Dimethylhexane | | | | |
| | | 2,5-Dimethylhexane | | | | |
| | | 2,2,3-Trimethylpentane | | | | |
| | | 2,4-Dimethylhexane | | | | |
| | | 2,3-Dimethylhexane | | | | |
| | | 2-Methylheptane | | | | |
| | | 4-Methylheptane | | | | |
| | | 3-Methylheptane | | | | |
| | | 3-Ethylhexane | | | | |
| | | 3,3-Dimethylheptane | | | | |
| | | 2,5-Dimethylheptane | | | | |
| | | 3,5-Dimethylheptane | | | | |
| | | 2,3-Dimethylheptane | | | | |
| | | 3,4-Dimethylheptane | | | | |
| | | 2-Methyloctane | | | | |
| | | 3-Methyloctane | | | | |
| | | 3,3-Diethylpentane | | | | |
| | | 2,2-Dimethyloctane | | | | |
| | | 3,3-Dimethyloctane | | | | |
| | | 2,3-Dimethyloctane | | | | |
| | | 3-Ethylheptane | | | | |
| | | 2-Methylnonane | | | | |
| 3-Methylnonane | | | | | | |

| Product No. | Product Name | Constituents | Conc/Property Value | Matrix | Pack Size | ASTM |
|------------------------|--------------------|---------------------------------|---------------------|--------|-----------|-------|
| REPIANO-A | PIANO Aromatics | Benzene | Varies per Batch | None | 1mL | D6279 |
| | | Toluene | | | | D6733 |
| | | EthylBenzene | | | | D5134 |
| | | m-Xylene | | | | D3710 |
| | | p-Xylene | | | | D2789 |
| | | o-Xylene | | | | |
| | | Isopropylbenzene | | | | |
| | | n-Propylbenzene | | | | |
| | | 1-Methyl-3-ethylbenzene | | | | |
| | | 1-Methyl-4-ethylbenzene | | | | |
| | | 1,3,5-Trimethylbenzene | | | | |
| | | 1-Methyl-2-ethylbenzene | | | | |
| | | 1,2,4-Trimethylbenzene | | | | |
| | | tert-Butylbenzene | | | | |
| | | Isobutylbenzene | | | | |
| | | sec-Butylbenzene | | | | |
| | | 1-Methyl-3-isopropylbenzene | | | | |
| | | 1-Methyl-4-isopropylbenzene | | | | |
| | | 1-Methyl-2-isopropylbenzene | | | | |
| | | 1-Methyl-3-n-propylbenzene | | | | |
| | | 1-Methyl-4-n-propylbenzene | | | | |
| | | n-Butylbenzene | | | | |
| | | 1,2-Diethylbenzene | | | | |
| | | 1-Methyl-2-n-propylbenzene | | | | |
| | | 1,4-Dimethyl-2-ethylbenzene | | | | |
| | | 1,3-Dimethyl-5-ethylbenzene | | | | |
| | | 1,2-Dimethyl-4-ethylbenzene | | | | |
| | | 1,3-Dimethyl-2-ethylbenzene | | | | |
| | | 1,2-Dimethyl-3-ethylbenzene | | | | |
| | | 1,2,4,5-Tetramethylbenzene | | | | |
| | | 2-Methylbutylbenzene | | | | |
| | | trans-1-Butyl-1-2-methylbenzene | | | | |
| | | n-Pentylbenzene | | | | |
| | | t-1-Butyl-1,3,5-dimethylbenzene | | | | |
| t-1-butyl-ethylbenzene | | | | | | |
| 1,3,5-Triethylbenzene | | | | | | |
| 1,2,4-Triethylbenzene | | | | | | |
| n-Hexylbenzene | | | | | | |
| REPIANO-N | PIANO Naphthalenes | Cyclopentane | Varies per Batch | None | 1mL | D6279 |
| | | Methylcyclopentane | | | | D6733 |
| | | Cyclohexane | | | | D5134 |
| | | 1,1-Dimethylcyclopentane | | | | D3710 |
| | | cis-1,3-Dimethylcyclopentane | | | | D2789 |
| | | trans-1,2-Dimethylcyclopentane | | | | |
| | | trans-1,3-Dimethylcyclopentane | | | | |
| | | Methylcyclohexane | | | | |
| | | Ethylcyclopentane | | | | |
| | | ctc-1,2,3-Trimethylcyclopentane | | | | |
| | | cct-1,2,4-Trimethylcyclopentane | | | | |
| | | ctc-1,2,4-Trimethylcyclopentane | | | | |
| | | trans-1,4-Dimethylcyclohexane | | | | |
| | | 1-Ethyl-1-methylcyclopentane | | | | |
| | | trans-1,2-Dimethylcyclohexane | | | | |
| | | ccc-1,2,3-Trimethylcyclopentane | | | | |
| | | Isopropylcyclopentane | | | | |
| | | cis-1,2-Dimethylcyclohexane | | | | |
| n-Propylcyclopentane | | | | | | |

Reagecon

Physical & Chemical Standards



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