

SGS Germany GmbH Am Neuen Rheinhafen 12 A D - 67346 Speyer

Tunap Industrie Chemie & Co.
Produktions KG
Bürgermeister Seidel Str. 2

82515 Wolfkratshausen
Germany

SGS Germany GmbH
Laboratory Services Speyer
Oil, Gas & Chemical Products
Fuel Technology Centre
Am Neuen Rheinhafen 12 A

Akkreditiert nach
DIN EN ISO/IEC 17025



D - 67346 Speyer

Tel: (+49) (0)6232 1301 - 41 / 43
Fax: (+49) (0)6232 1301 - 49
Email: de.ogc.speyer@sgs.com

Page 1 of 4

Final Report: SP15-00258.1

Replace for Analytical Report: SP15-00258.0 dated 25.02.2015

SGS Sample No.:	SP15-00258.001	SGS SAP Order No.:	3282920
Product designated:	Gasoline	Specification:	-
Date received:	12.02.2015		
Packaging:	5 l Metall can	Sample amount:	5 l
Client reference:	Lab Blend 1		
Sample Label:	5 l Gasoline Super E5 + 100 ml Tunap Art. 974 micro flex		

Test / Analyte	Test Method / Norm	Result	Unit
Appearance*	visual		
Appearance		clear and bright	-
Contamination		free from solid matter	-
Water		free from undissolved water	-
Density @ 15°C	DIN EN ISO 12 185	726.8	kg/m ³
Vapour Pressure	DIN EN 13 016-1		
DVPE		87.5	kPa
Distillation	DIN EN ISO 3405		
evaporated @ 70°C		49.1	% v/v
evaporated @ 100°C		64.6	% v/v
evaporated @ 150°C		91.2	% v/v
Final Boiling Point		185.6	°C
Residue		1.0	% v/v
Vapour Lock Index	calc. EN 228	1219	-
Oxidation stability	DIN EN ISO 7536	>360	min
Ex-Gum	DIN EN ISO 6246		
washed		2	mg/100 ml
Copper corrosion 3h @ 50°C	DIN EN ISO 2160	1a	Grade
Research Octane Number	DIN EN ISO 5164		
corrected, EN 228		95.4	-
Motor Octane Number	DIN EN ISO 5163		

* = Test method not accredited

The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated. All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report. Precision parameters apply in the determination of the above results. Precision data are calculated on request. Users of the data shown on this report should refer to the latest published revisions of ASTM D-3244; IP 367; ISO 4259 and Appendix E of IP Standard Methods for Analysis and Testing when utilising the test data to determine conformance with any specification or process requirement. Analytical Reports are sent as pdf file without signature. A signed document will be sent on request. This report shall not be reproduced except in full, without the written approval of the SGS laboratory. This Test Report is issued under the Company's General Conditions of Service (copy available upon request). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein.

Final Report: SP15-00258.1

Replace for Analytical Report: SP15-00258.0 dated 25.02.2015

SGS Sample No.:	SP15-00258.001	SGS SAP Order No.:	3282920
Product designated:	Gasoline	Specification:	-
Date received:	12.02.2015		
Packaging:	5 l Metall can	Sample amount:	5 l
Client reference:	Lab Blend 1		
Sample Label:	5 l Gasoline Super E5 + 100 ml Tunap Art. 974 micro flex		

Test / Analyte	Test Method / Norm	Result	Unit
Motor Octane Number corrected, EN 228	DIN EN ISO 5163	85.4	-
Lead	DIN EN 237	<2.5	mg/l
Sulfur content	DIN EN ISO 20846	5.0	mg/kg
Manganese*	DIN EN 16136	<2	mg/l
O-PONA	DIN EN ISO 22854		
Aromatics		23.0	% v/v
Olefins		11.4	% v/v
Benzene		0.80	% v/v
Total Ethers		2.53	% v/v
Methanol		<0.01	% v/v
Ethanol		4.68	% v/v
Iso-Propanol		1.73	% v/v
Iso-Butanol		<0.01	% v/v
tert. Butanol		<0.01	% v/v
Total Other Oxygenates		<0.01	% v/v
Oxygen		2.69	% m/m

Speyer, 03.03.2015

i.V. Stefan Heppes
Lab Manager

* = Test method not accredited

The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated. All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report. Precision parameters apply in the determination of the above results. Precision data are calculated on request. Users of the data shown on this report should refer to the latest published revisions of ASTM D-3244; IP 367; ISO 4259 and Appendix E of IP Standard Methods for Analysis and Testing when utilising the test data to determine conformance with any specification or process requirement. Analytical Reports are sent as pdf file without signature. A signed document will be sent on request. This report shall not be reproduced except in full, without the written approval of the SGS laboratory. This Test Report is issued under the Company's General Conditions of Service (copy available upon request). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein.

SGS Germany GmbH Am Neuen Rheinhafen 12 A D - 67346 Speyer

Tunap Industrie Chemie & Co.
Produktions KG
Bürgermeister Seidel Str. 2

82515 Wolfkratshausen
Germany

SGS Germany GmbH
Laboratory Services Speyer
Oil, Gas & Chemical Products
Fuel Technology Centre
Am Neuen Rheinhafen 12 A

Akkreditiert nach
DIN EN ISO/IEC 17025



D - 67346 Speyer

Tel: (+49) (0)6232 1301 - 41 / 43
Fax: (+49) (0)6232 1301 - 49
Email: de.ogc.speyer@sgs.com

Page 3 of 4

Final Report: SP15-00258.1

Replace for Analytical Report: SP15-00258.0 dated 25.02.2015

SGS Sample No.:	SP15-00258.002	SGS SAP Order No.:	3282920
Product designated:	Gasoline	Specification:	-
Date received:	12.02.2015		
Packaging:	5 l Metall can	Sample amount:	5 l
Client reference:	Lab Blend 2		
Sample Label:	5 l Gasoline Super E5+ 150 ml Tunap Art. 979 micro flex		

Test / Analyte	Test Method / Norm	Result	Unit
Appearance*	visual		
Appearance		clear and bright	-
Contamination		free from solid matter	-
Water		free from undissolved water	-
Density @ 15°C	DIN EN ISO 12 185	727.3	kg/m ³
Vapour Pressure	DIN EN 13 016-1		
DVPE		87.1	kPa
Distillation	DIN EN ISO 3405		
evaporated @ 70°C		45.9	% v/v
evaporated @ 100°C		64.3	% v/v
evaporated @ 150°C		90.5	% v/v
Final Boiling Point		184.7	°C
Residue		1.0	% v/v
Vapour Lock Index	calc. EN 228	1192	-
Oxidation stability	DIN EN ISO 7536	>360	min
Ex-Gum	DIN EN ISO 6246		
washed		3	mg/100 ml
Copper corrosion 3h @ 50°C	DIN EN ISO 2160	1a	Grade
Research Octane Number	DIN EN ISO 5164		
corrected, EN 228		94.9	-
Motor Octane Number	DIN EN ISO 5163		

* = Test method not accredited

The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated. All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report. Precision parameters apply in the determination of the above results. Precision data are calculated on request. Users of the data shown on this report should refer to the latest published revisions of ASTM D-3244; IP 367; ISO 4259 and Appendix E of IP Standard Methods for Analysis and Testing when utilising the test data to determine conformance with any specification or process requirement. Analytical Reports are sent as pdf file without signature. A signed document will be sent on request. This report shall not be reproduced except in full, without the written approval of the SGS laboratory. This Test Report is issued under the Company's General Conditions of Service (copy available upon request). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein.

Final Report: SP15-00258.1

Replace for Analytical Report: SP15-00258.0 dated 25.02.2015

SGS Sample No.:	SP15-00258.002	SGS SAP Order No.:	3282920
Product designated:	Gasoline	Specification:	-
Date received:	12.02.2015		
Packaging:	5 l Metall can	Sample amount:	5 l
Client reference:	Lab Blend 2		
Sample Label:	5 l Gasoline Super E5+ 150 ml Tunap Art. 979 micro flex		

Test / Analyte	Test Method / Norm	Result	Unit
Motor Octane Number corrected, EN 228	DIN EN ISO 5163	85.0	-
Lead	DIN EN 237	<2.5	mg/l
Sulfur content	DIN EN ISO 20846	5.0	mg/kg
Manganese*	DIN EN 16136	<2	mg/l
O-PONA	DIN EN ISO 22854		
Aromatics		23.6	% v/v
Olefins		11.4	% v/v
Benzene		0.79	% v/v
Total Ethers		4.08	% v/v
Methanol		<0.01	% v/v
Ethanol		4.46	% v/v
Iso-Propanol		<0.01	% v/v
Iso-Butanol		<0.01	% v/v
tert. Butanol		<0.01	% v/v
Total Other Oxygenates		<0.01	% v/v
Oxygen		2.38	% m/m

Speyer, 03.03.2015

i.V. Stefan Heppes
Lab Manager

Job comment:

Results for all analysed parameters of analysed sample are within limits os EN228 specification.

* = Test method not accredited

The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated. All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report. Precision parameters apply in the determination of the above results. Precision data are calculated on request. Users of the data shown on this report should refer to the latest published revisions of ASTM D-3244; IP 367; ISO 4259 and Appendix E of IP Standard Methods for Analysis and Testing when utilising the test data to determine conformance with any specification or process requirement. Analytical Reports are sent as pdf file without signature. A signed document will be sent on request. This report shall not be reproduced except in full, without the written approval of the SGS laboratory. This Test Report is issued under the Company's General Conditions of Service (copy available upon request). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein.