

Limited Liability Company Shkapovskoye Gas Processing Plant

Location (address of the legal entity): 452017, Russian Federation, Republic of Bashkortostan, Belebeyevsky district, Priyutovo industrial township, Mira Boulevard, 7A, premises # 2

Address of the place of activity for the production of liquefied petroleum gases: 452026, Russian Federation, Republic of Bashkortostan, Bizhbulyaksky district, Mikhailovsky Village Council

CERTIFICATE No. 165
Hydrocarbon gases, liquefied fuel
of propane automotive/autogas (PA) grade according to GOST R 52087-2018

Designation of documents that establish requirements to products:
 GOST R 52087-2018 "Hydrocarbon gases liquefied fuel Specifications"
 OKPD 2 Code: 19.20.31.110

EAC
 Declaration of Conformity
 EAEU No. RU D-RU AB 04.B.02403/19
 valid until 23.06.2022

Date of manufacture: 10.02.2022
 Batch number: 165
 Batch size (mass): 33.060 tons of oil.
 Sampling site (according to GOST 14921): v/c 50812213
 Date of sampling: 10.02.2022
 Test date: 10.02.2022

Name of the indicator	Method method	The norm of the indicator as per EAEU TR 036/2016	The norm of the indicator according to GOST R 52087 for the PA grade	Test result
1. Mass fraction of components. % : - the amount of methane, ethane and ethylene -the amount of propane and propylene, including propane - the amount of butanes and butylenes -the amount of unsaturated hydrocarbons	GOST 10679	Not standardized Not standardized Not standardized maximum 6	Not standardized - 85±10 Not standardized maximum 6	2.39 80.97 16.64
2. Volume fraction of liquid residue, at 20°C, %	item 8.2. GOST R 52087	maximum 1.6	maximum 0.7	Absence
3. Saturated vapor pressure, excessive, MPA, at a temperature of plus 45°C minus 30°C	GOST 28656	Maximum 1.6 Minimum 0.07	maximum 1.6 minimum 0.07	<i>1.43</i> <i>0, 10</i>
4. The content of hydrogen sulfide and mercaptan sulfur - mass fraction, % including hydrogen sulfide	GOST 22985	Maximum 0.01 Minimum 0.003	maximum 0.01 maximum 0.003	<i>0.0026</i> <i>20.0002</i>
5. Free water and alkali content	item 8.2. GOST R 52087	Absence	Absence	Absence
6.3. Odor	item 8.3. and Appendix B GOST R 52087	Unpleasant and characteristic at a concentration in the air of 20% of the lower limit of flammability	Characteristic unpleasant at a concentration in the air of 20% vol. from the lower limit of flammability	—
7. Octane number	Appendix B GOST R 52087	minimum 89	minimum 89	<i>95.8</i>
8. Density at 15°C, kg/m ³	GOST 28656	Not standardized	Not standardized	<i>512.7</i>

Conclusion: The quality of the products corresponds to the PA grade according to the requirements of GOST R 52087-2018 "Liquefied petroleum gases. Specifications"

Additional requirements:

- * if the mass fraction of mercaptan sulfur is 0.001% or more, it is allowed not to determine the "odor" indicator;
- if the mass fraction of mercaptan sulfur is less than 0.001%, liquefied gases must be odorized in accordance with the established procedure;
- the saturated vapor pressure at a temperature of minus 30°C is determined only in winter;
- transportation and storage should be carried out according to the requirements of GOST 1510-84;
- the manufacturer (LLC Shkapovskoe GPP) guarantees that the quality of the product meets the requirements of GOST R 52087-2018 within 6 months from the date of manufacture, subject to the consumer's conditions of transportation and storage.

Head of the production laboratory /signature/ I.L. Tuchina

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Laboratory assistant / signature/ M. I. Ilyasova

Date of issue: 10.02.2022

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