Novokuibyshevsk Petrochemical Company Joint Stock Company
Russian Federation, Samara region, Novokuibyshevsk city
Email address: nnk@nnk.rosneft.ru tel. (84635) 3-02-20
Certificate of quality management system for compliance with the requirements of
ISO 9001:2015 No. 31100975QM15. Certificate validity period: until 27.09.2024

РОСНЕФТЬ

# QUALITY CERTIFICATE No. 2046

## Propane fraction
## A Grade
## TS 0272- 023-00151638-99 with amendments No. 1-7

**EXPORT**

| | | | |
|---|---|---|---|
| **Date of manufacture** | 30.12.2021 | **Product vessel No.** | 6/5 |
| **Date of sampling** | 30.12.2021 | **Net weight, t** | 24.400 |
| **Test date:** | 30.12.2021 | **Rail tank car No.** | 57581241 |

The tests were carried out at the Testing Center - Quality Control Department of NNK JSC
Certificate of accreditation No. ROSS RU.0001.515720 Date of entry of information into the register of accredited entities July 29, 2015.

| Item No. | Name of the indicator | Norm | Actually | Testing method |
|---|---|---|---|---|
| 1 | Mass fraction of components, %:<br>the amount of $C_1$-$C_1$ hydrocarbons<br>the amount of $C_1$ hydrocarbons<br>including propylene<br>the amount of $C_1$ hydrocarbons and higher<br>the amount of $C_1$ hydrocarbons and higher | <br>maximum 2.0<br>minimum 96.0<br>maximum 0.2<br>maximum 3.0<br>Absence | <br>Less than 0.0050<br>Over 99.98<br>Less than 0.010<br>Less than 0.010<br>Absence | GOST 10679-2019 |
| 2 | Mass fraction of hydrogen sulfide and mercaptan sulfur, % | maximum 0.003 | Less than 0.0002% | GOST 22985-2017 |
| 3 | Free water and alkali content | Absence | Absence | TS 0272-023-00151638-99 -5.3, item 5.3 |

**Conclusion: Propane fraction Grade A meets the requirements:**
TS 0272- 023-00151638-99 with amendments No 1-7
**Additional Information:**
Density at a temperature of 15 °C, kg/m$^3$ GOST 28656-2019 508.6

The manufacturer guarantees that the product quality meets the requirements of this standard, subject to the conditions of transportation and storage.
The warranty period of storage is 3 months from the date of manufacture

Stamp here Specialist /signature/ R. A. Maksimenkova
(signature) (surname, initials)

Certificate issue date: 31.12.2021
Seal:
Novokuibyshevsk, Samara region, Russian Federation
Novokuibyshevsk Petrochemical Company Joint Stock Company
For documents.

EXAMPLE