## COPY



Joint Stock Company Kuibyshev Oil Refinery Legal address: Russian Federation, 443004, Samara, Groznenskaya str., 25 e-mail: sekr@snpz.rosneft.ru, tel.: 846 – 307 32 18

ISO 9001:2015 Quality Management System Certificate No. 31100475 QM15 The certificate is valid until 17.08.2024.

Testing Center - Plant Central Lab (PCL) 443004, Samara, Groznenskaya Str., 25 Joint Stock Company Kuibyshev Oil Refinery e-mail: sekr@snpz.rosneft.ru , tel.: 846 – 307 32 18

## **CERTIFICATE No. 3 405**

Broad fraction of light hydrocarbons (NGLs), B Grade TS 38.101524-2015

Designation of documents establishing fuel requirements:

TS 38.101524-2015 "Broad fraction of light hydrocarbons. Specifications"

OKPD Code 2 -19. 20. 32 Batch number: 3405

Date of manufacture: 30.11.2021 Batch size (mass): 92.00 t

Sampling location (according to GOST 14921-2018): bullet 1 020

Filling level: 256.50 cm.

Date of sampling: 30.11.2021

Test date: 30.11.2021 - 01.12.2021

The certificate was issued on the basis of the test report: No. 5824, 5825 dated 01.12.2021.

| No. | Name of the indicator  | Testing method                   | Norm according to TS 38.101524-2015  | Actual value  |
|-----|--|----------------------------------|--|---|
| 1   | Mass fraction of components, %:<br>the amount of $C_1$ - $C_2$ hydrocarbons<br>including: methane<br>ethane<br>propane<br>the amount of $C_4$ - $C_5$ hydrocarbons<br>including:<br>the amount of $C_4$ hydrocarbons<br>the amount of $C_5$ hydrocarbons<br>the amount of $C_6$ hydrocarbons | GOST 10679-2019                  | maximum 5 not standardized not standardized not standardized minimum 40 Not standardized Definition required. Not standardized Definition required. maximum 30 | 0.543<br>0.028<br>0.51<br>15.9<br>83.460<br>83.062<br>0.398<br>Less than 0.01 |
| 2   | Mass fraction of methanol, %   | GOST R 54484-2011.<br>(Method B) | maximum 0.15   | Less than 0.001   |
| 3   | Mass fraction of hydrogen sulfide and mercaptan sulfur, % including hydrogen sulfide   | GOST 22985-2017                  | maximum 0.05<br>maximum 0.003  | 0.0070<br>Less than 0.0002  |
| 4   | Free water and alkali content  | item 5.3 TS 38.101524-2015       | Absence Definition required.   | Absence   |
| 5   | Overall view   | item 5.4 TS 38.101524-2015       | colorless transparent liquid   | colorless transparent<br>liquid   |
| 6   | Density at 20°C, kg/m <sup>3</sup>   | item 4 GOST 28656-2019           | not standardized Definition required.  | 559.0   |

## Additional information (item 1 letter of JSC KNPZ ref. No. 02-12/742 dated 30.12.2016, item 2 of the Tax Code of the Russian Federation Article 181 item 1 sub-item 11)

| No. | Name of the indicator   | Testing method  | Norm         | Actual<br>value |
|-----|---|-----------------|--------------|-----------------|
| 1   | Mass fraction of unsaturated hydrocarbons                                 | GOST 10679-2019 | maximum 0.50 | 0.113           |
| 2   | The aggregate state at a temperature of 20°C and a pressure of 760 mm Hg. | Visually        | -            | Gaseous state   |

Conclusion: Broad fraction of light hydrocarbons (NGLs), grade B, TS 38.101524-2015

meets the requirements: TS 38.101524-2015 "Broad fraction of light hydrocarbons. Specifications" for grade B. The fraction of broad light hydrocarbons (NGLs), grade B in accordance with sub-item 11, item 1 of Article 181 of the Tax Code of the Russian Federation is not an average distillate.

## **Additional Information:**

- labelling, packing, transportation and storage according to GOST 1510-84.

- the manufacturer of JSC KNPZ guarantees that the quality of the broad Fraction of light hydrocarbons (NGLs), grade B meets the requirements of TS 38.101524-2015 "Broad fraction of light hydrocarbons. Specifications" subject to the conditions of transportation and storage according to GOST 1510-84 for 3 months from the date of manufacture.

Stamp here (Stamp of the enterprise)



Shift supervisor of shop No. 10\_\_\_\_\_ I.M. Kushnareva

(Power of attorney No. 21 dated 01.01.2021)

Certificate issue date: 01.12.2021



