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Novokuibyshevsk Petrochemical Company Joint Stock Company
Russian Federation, Samara Region, Novokuibyshevsk
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. FM 696147. Certificate validity period: through 17.10.2021



QUALITY CERTIFICATE No. 5

Fraction of normal pentane

A Grade

TU 0272-029-00151638-99 with amendments No. 1–6

Date of manufacture 13.08.2021 **Product vessel No.** 1/5
Date of sampling: 13.08.2021 **NET weight:** 121.253 t
Test date: 13.08.2021 **Rail tank car No.** 65989635

The tests were carried out at the Test Center – Quality Control Department of JSC NNK

Certificate of accreditation No. ROSS RU.0001.515720 Date of information entry into the register of accredited entities July 29, 2015.

Item No.	Name of the indicator	Norm	Actually	Testing method
1	Mass fraction of components, %: sum of hydrocarbons C ₅ -C ₆ Normal pentane Isopentane total C ₅ sum of olefins C ₅ -C ₆	no more than 0.2 no less than 96.5 not standardized no more than 1.5 no more than 0.3	0.10 Over 99.00* 0.24 0.37 0.08	GOST-24676-2017
2	Mass fraction of total sulphur, %	no more than 0.01	Less than 0.0150	GOST R 51947-2002
3	Alkali content	Absence	Absence	GOST-6307-75
4	Content of water and mechanical impurities	Absence	Absence	TU 0272-029-0015163899 cl. 5.2

Note: – For Novokuibyshevsk Petrochemical Company JSC, instead of the "cyclopentane + C₅ sum" component, it is set – "C₅ sum" with a norm of not more than 1.5 and 2.0, respectively, by grade. Methods according to items 3 are not included in the scope of accreditation of the Testing Center – Quality Control Department of NNK JSC

Conclusion: The fraction of normal pentane Grade A meets the requirements:

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Additional information

Density at 15 °C, kg/m³ GOST-28656-2019 631.1
Density at 20 °C, kg/m³ GOST-28656-2019 626.2

The method for calculating density at 15 °C and density at 20 °C is not included in the scope of accreditation of the Testing Center-Quality Control Department of JSC "NNK" 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

L.S. Specialist I.I. Krylova
(signature) _____ (surname, initials)

Certificate issue date: 20.08.2021

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