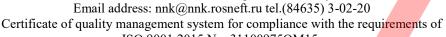
Novokuibyshevsk Petrochemical Company Joint Stock Company Russian Federation, Samara Region, Novokuibyshevsk Email address: nnk@nnk.rosneft.ru tel.(84635) 3-02-20



ISO 9001:2015 No. 31100975QM15. Certificate validity period: until 27.09.2024



QUALITY CERTIFICATE No. 827 Methyl-tert-amyl ether (MTAE) A Grade STO 91051486-006-2012 with amendments No. 1-4

Date of manufacture 31.12.2021 **Batch number:** 31.12.2021 Batch size (mass): 135 t Date of sampling: Sampling site (according to GOST 2517-2012): Test date: 31.12.2021 8/2

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

Item No.	Name of the indicator	Norm	Actually	Testing method
1	Overall view	transparent liguid	transparent liguid	Industry Standard 91051486-006- 2012 cl. 7.2
2	Mass fraction of the sum of MTAE and megylpentenyl ethers, %	no less than 96.0	98.72	
	including mass fraction of MTAE, %	no less than 89.0	92.22	MI No. 04-2011, certificate
3	Mass fraction of alcohols, %	maximum 1.5	0.45	No. 12/01.00037- 2011 dated
	including mass fraction of methanol, %	no more than 0.5	0.03	18.11.2011
4	Mass fraction of hydrocarbons C5 and C10, %	maximum 1.5	0.60	
5	Total sulfur content, mg/kg	no more than 10	less than 3.0	GOST R EN ISO 20846-2006
6	Mass fraction of water, %	no more than 0.1	less than 0.01	GOST 14870-77, amendm. 1–2, cl. 2
7	Mechanical impurities	Absence	Absence	(STO) Industry Standard 91051486- 006-2012 cl. 7.4

Note - The mass fraction of all components according to indicators 2, 3, 4 is given without taking into account hydrocarbons C₆. - Methyl-tert-amyl ether (MTAE) is intended for use as a high-octane component of motor gasoline and for export

Conclusion: Methyl-tert-amyl ETHER (MTAE) grade A complies with the requirements:

STO 91051486-006-2012 with amendments No. 1-4

The manufacturer guarantees the conformity of the quality of the products with the rowing products of this standard, subject to the conditions of transportation and storage

Specialist /signature/ E.I. Egorova (surname, initials) L.S. (signature) /seal /Russian Federation* Samara Region* Novokuibyshevsk, Joint Stock Company "Novokuibyshevsk Petrochemical Company" 31.12.2021 For documents*/