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ISO 9001:2015 Quality Management System Certificate No. 31100440 QM15 Certificate validity period: through 29.06.2024

## **QUALITY CERTIFICATE NO. 29362** Petroleum solvent (nefras) P1-63/75

Document establishing product specifications:

TU 38.1011228-90 "Hexane solvents. Technical specifications.

OKPD 2 Code 2 19.20.23.129

Batch number: 29362

Date of manufacture: 13.12.2021 Batch size (mass): 898 t

Sampling location (according to GOST 2517-2012): tank No. 150

Filling level: 7250 mm Date of sampling: 13.12.2021

Test date: 13.12.2021 The tests were performed: Shop No. 10 Testing Laboratory

Central Factory Laboratory

The certificate was issued based on the quality analysis dd 13.12.2021 No. 11241

| The certificate was issued based on the quality analysis do 13.12.2021 No. 11241 |   |                         |                                    |              |  |  |
|--|---|-------------------------|------------------------------------|--------------|--|--|
| Item   | Indicator   | Test method             | Standard according to GOST 9572-93 | Actual value |  |  |
| No.  |   |                         |                                    |              |  |  |
| 1  | Density at 20 °C, g/cm³   | GOST 3900-85            | no more than 0.685                 | 0.6745       |  |  |
| 2  | Fractional composition  | GOST 2177-99 (method A) |                                    |              |  |  |
|  | - initial temperature of fractionation, °C                          |                         | not lower than 63                  | 64.0         |  |  |
|  | - temperature of fractionating 98% of the sample, °C                |                         | not higher than 75                 | 73.0         |  |  |
|  | - residue in the bottle, %  |                         | no more than 1.0                   | 0.9          |  |  |
| 3  | Bromine number, g of bromine per 100 cm <sup>3</sup> of the solvent | TU 38.1011228-90 p. 5.2 | no more than 0.06                  | 0.021        |  |  |
| 4  | Mass fraction of benzene, %   | TU 38.1011228-90 p. 5.3 | no more than 0.1                   | 0.04         |  |  |
| 5  | Mass fraction of sulfur,%   | GOST 13380-81           | no more than 0.00020               | 0.00003      |  |  |
| 6  | Availability of water soluble acids and bases                       | GOST 6307-75            | absent                             | absent       |  |  |
| 7  | Content of mechanical impurities and water                          | TU 38 1011228-90 p. 5.5 | absent                             | absent       |  |  |

## <u>Conclusion:</u> Petroleum solvent P1-63/75 <u>meets the specifications</u> - TU 38.1011228-90 "Hexane solvents. Technical specifications".

## **Additional Information:**

- marking, transportation and storage according to GOST 1510-84;
- The warranty period of storage is 2 years from the date of manufacture

|      | Shift process engineer, shop No. 11          |           | D.A. Glebo |
|------|--|-----------|------------|
| L.S. | (Power of attorney No. 381 dated 18.12.2020) | signature | _          |
|      | Certificate issue date 13 12 2021 08:00      | · ·       |            |