



Inspection of Products
Quality Control, SLOVNAFT, a. s.,
Vičie hrdlo 1, 824 12 Bratislava



INSPECTION CERTIFICATE No: 130228_079

ROTH HEIZOLE GMBH
Conrad V.Hoetendorfstr.160
8020 Graz
AT

Inspection object : BA SUPER 95 E5 bio min. 4,8% (V/V)
Inspection technique : Conformity assessment according to QC_1_REF_SN1 with: STN EN 228
Contract No. : 55210136600.
Delivery Order Number : 16090550
Tariff item : 2710 12 45

Batch : EXP_N5218/39961/

Release : 25. 2. 2013 13:21:33

Production date : 25. 2. 2013

| Property | Results | Requirements | Test Method |
|---|------------------|--------------|------------------|
| Research octane number, | 95.7 | min. 95 | STN EN ISO 5164 |
| Motor octane number, | 85.5 | min. 85 | STN EN ISO 5163 |
| Lead, mg/l | <2 | max. 5 | STN EN 237 |
| Density at 15 °C, kg/m ³ | 744.8 | 720 - 775 | STN EN ISO 12185 |
| Density at 15 °C adj. for buoyancy, kg/m ³ | 743.7 | | DIN 51650 |
| Sulphur, mg/kg | 5.04 | max. 10 | STN EN ISO 20846 |
| Oxidation stability, min | >380 | min. 360 | STN EN ISO 7536 |
| Gum content, mg/100cm ³ | 1.0 | max. 5 | STN EN ISO 6246 |
| Copper strip corrosion, | 1a | 1 | STN EN ISO 2160 |
| Appearance, | Clear and bright | | STN EN 228 |
| Benzene, % (V/V) | 0.60 | max. 1 | STN EN ISO 22854 |
| Olefins, % (V/V) | 13.5 | max. 18 | STN EN ISO 22854 |
| Aromatics, % (V/V) | 30.4 | max. 35 | STN EN ISO 22854 |
| Oxygen content, % (m/m) | 1.8 | max. 2.7 | STN EN ISO 22854 |
| Methanol, % (V/V) | 0 | max. 3 | STN EN ISO 22854 |
| Ethanol, % (V/V) | 4.89 | max. 5 | STN EN ISO 22854 |
| Iso-propyl alcohol, % (V/V) | 0 | max. 10 | STN EN ISO 22854 |
| Tert-butyl alcohol, % (V/V) | 0 | max. 7 | STN EN ISO 22854 |
| Iso-butyl alcohol, % (V/V) | 0 | max. 10 | STN EN ISO 22854 |
| Ethyl tert-butyl ether, % (V/V) | 0.2 | | STN EN ISO 22854 |
| Ethers (5 or more carbon atoms), % (V/V) | 0.2 | max. 15 | STN EN ISO 22854 |
| Other oxygenates, % (V/V) | 0 | max. 10 | STN EN ISO 22854 |
| Vapor pressure (DVPE), kPa | | 45 - 60 | STN EN 13016-1 |
| Vapor pressure (DVPE)/mix s-w/, kPa | | 50 - 80 | STN EN 13016-1 |
| Vapor pressure (DVPE) in winter, kPa | | 60 - 90 | STN EN 13016-1 |
| Distillation begin, °C | 36.5 | | STN EN ISO 3405 |
| Final boiling point, °C | 203.2 | max. 210 | STN EN ISO 3405 |
| Total recovered, % (V/V) | 97.7 | | STN EN ISO 3405 |
| At 70 °C recovered, % (V/V) | | 20 - 48 | STN EN ISO 3405 |
| At 70 °C recovered /mix s-w/, % (V/V) | | 22 - 50 | STN EN ISO 3405 |
| At 70 °C recovered in winter, % (V/V) | 41.8 | 22 - 50 | STN EN ISO 3405 |
| At 100 °C recovered, % (V/V) | 56 | 46 - 71 | STN EN ISO 3405 |
| At 150 °C recovered, % (V/V) | 79.1 | min. 75 | STN EN ISO 3405 |
| Distillation residue, % (V/V) | 1.0 | max. 2 | STN EN ISO 3405 |
| Biocomponent, % (V/V) | 4.98 | min. 4.8 | CALCULATION |

Statement: The analytical testing was performed in accredited testing laboratories as subcontracting.

Tank(s): 33517856229-4 33517850637-4 33517852862-6 33817856232-2 33877855411-7 33817856223-1 33807966603-2
33807966524-0 33877849125-2 33877855449-7 33877855785-4 33807957596-9 33877855660-9 33807966563-8
33807845093-3 33877854597-4 33877854010-8

Object of inspection meets requirements in compliance with: STN EN 228

Date of Inspection: 28. 2. 2013

Inspection executed and approved by: Šebestyénová Jarmila, inspector

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