

CERTIFICATE OF ANALYSIS

Product : **GLYCEROL ANHYDROUS**
 Product number : **G1345**
 Batch number : **014130**
 Date of production : **09-11-2018**
 Date of analysis : **09-11-2018**
 Date of expiry : **30-11-2021**

Packaging and storage : in a well closed container at room temperature

| | SPECIFICATION | RESULT | UNITS | REMARKS |
|-----------------------------------|---------------------------------|----------|--------------------|--------------------------------|
| Appearance | clear, colourless syrupy liquid | complies | | hygroscopic |
| Solubility | miscible with water | complies | | |
| Relative density | about 1.26 | 1.261 | g·cm ⁻³ | |
| Identification | conform | complies | | IR-spectrum |
| Colour of solution | colourless | complies | | 20% in H ₂ O |
| Clarity of solution | clear | complies | | 50% in H ₂ O |
| Acidity or alkalinity | ≤ 0.2 | 0.04 | ml | 0.1 M NaOH |
| Refractive index | 1.471 – 1.475 | 1.4733 | | 20 °C |
| Aldehydes | ≤ 10 | complies | ppm | |
| Esters | ≥ 8.0 | 9.15 | ml | 0.1 M HCl |
| Halogenated compounds | ≤ 35 | complies | ppm | |
| Impurity A and related substances | conform | complies | | GC |
| Sugars | conform | complies | | colour reaction |
| Chlorides | ≤ 10 | complies | ppm | |
| Water | ≤ 2.0 | 0.03 | % | |
| Sulphated ash | ≤ 0.01 | complies | % | |
| Assay | 98.0 – 101.0 | 99.84 | % | anhydrous substance, titration |

This certificate of analysis is conform the results of the manufacturer.

Conclusion: approved

Released by:

drs. J. van der Eem, pharmacist
 Department of Quality Control Duchefa B.V.

Date: 15-11-2018

The buyer is responsible to test each batch to ensure the product is suitable for their specific purpose