



## Enzytec™ *Liquid* Ethanol

### Liquid, ready-to-use and stable reagents

Ethanol is the end product of alcoholic fermentation and a desired component of alcoholic beverages, but also the undesirable component in non-alcoholic and low-alcoholic beverages, or in other foodstuffs like chocolates, sweets, jam, honey, vinegar and dairy products. The presence of ethanol in products like fruit juices indicates that the components used for production may have decomposed. Ethanol is also an indirect indicator for the presence of yeasts. In the non-food industry, ethanol is a solvent e. g. for essential oils and pharmaceutical substances.

Enzytec™ *Liquid* is a range of enzymatic test-kits manufactured by R-Biopharm, which offer liquid, ready-to-use and stable reagents with following advantages:

- For small labs, the kits can be opened to perform a few tests and put back into the fridge for further usage (shelf life stays the same even after opening)
- For large labs, the reagents can be adapted to any biochemistry analyzer because of the liquid, stable and 2-reagents format.

#### Benefits

- Reagents are liquid and ready-to-use  
→ no time wasted for reconstitution and no errors
- Reagents are stable up to the expiry date, even after opening → no reagent waste
- Same pipeting scheme for all tests  
→ ease of use and less errors
- Only 2 reagents → easy application on any biochemistry instrument

## Specifications

### Test-principle and kit contents

Enzymatic test with Alcohol-Dehydrogenase (ADH). NADH is produced and is measured at 340 nm:



The reagents are ready-to-use:

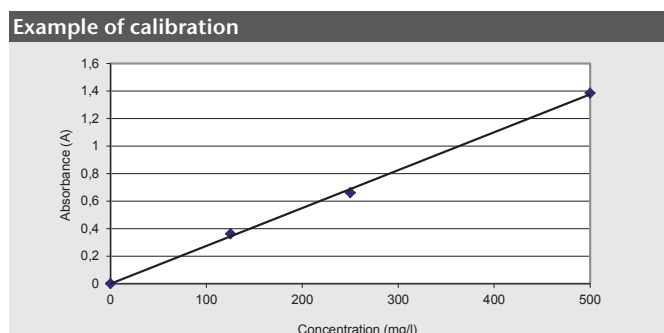
- Reagent 1: two vials  $\geq$  50 ml (buffer)
- Reagent 2: two vials  $\geq$  12.5 ml (NAD, ADH)

### Performance data

Pipeting scheme	Manual test	2000 $\mu$ l R1 + 100 $\mu$ l sample + 500 $\mu$ l R2 (50 tests/kit)
	Automation	160 $\mu$ l R1 + 8 $\mu$ l sample + 40 $\mu$ l R2 (625 tests/kit)
Linearity		10 - 500 mg/l
Interferences		
Limit of detection		1.7 mg/l
Limit of quantification		3.0 mg/l
Recovery of controls	Reference Roche	95 - 105 %
Incubation time		10 - 15 min at 18 °C, 5 min at 37 °C
Method comparison	Reference Roche	Coefficient of correlation = 1.000 or very close
Stability	Stress-testing 37 °C	Stable 3 weeks at 37 °C
	Shelf-life (2 - 8 °C)	Stable until indicated shelf-life (18 months)
	Daily routine	Reagents can be opened and closed as much as needed

### Application on biochemistry analysers

Application	
Temperature	37 °C
Wavelength	340/405 nm (primary/secondary)
Test sequence	<ul style="list-style-type: none"> <li>• Pipeting R1 (160 <math>\mu</math>l)</li> <li>• Pipeting sample (8 <math>\mu</math>l)</li> <li>• Pre-incubation 3 min</li> <li>• Measurement A<sub>1</sub></li> <li>• Pipeting R2 (40 <math>\mu</math>l)</li> <li>• Incubation 10 min at 37 °C</li> <li>• Measurement A<sub>2</sub></li> <li>• Calculation <math>\Delta A = A_2 - A_1</math></li> <li>• Calibration curve for sample calculation</li> </ul>



## Ordering information

Product	Description	Art. No.
Enzytec™ Liquid	Sugars	
Ethanol	Enzymatic determination of Ethanol in food and other sample material (50 tests in manual testing, 625 tests on biochemistry analyzers)	E8340