

28/11/2014

**ETHANOL 96% DENATURED SPECIFICATION**

TEST	Method	Unit	Req. Specification	Test Result
Appearance	visual		clear liquid	clear liquid
Color	visual		colorless	colorless
Taste			burning	burning
Odor			neutral	neutral
Alcohol content	DM	vol %	min. 96.0	96.6
Aldehydes content	GC	g/hl p.a.	max. 0.5	<0.1
Acids content	EC625/2003	g/hl p.a.	max.1.5	0.15
Esters content	EC 2870	g/hl p.a.	max. 1.3	<0.1
Higher alcohols total	EC 2870	g/hl p.a.	max. 0.5	<0.1
Methyl alcohol	EC 2870	g/hl p.a.	max. 30	<10
Furfural	EC625/2003		Not detectable	Not detectable
Saval test	visual		sustain	sustain
Permanganate test	visual	min/20°C	min. 18	28
Volatile basis containing nitrogen	EC625/2003	g/hl p.a.	max. 0.1	<0.01
Dry Residue	EC625/2003	g/hl p.a.	max. 1.5	0.9
Density	ASTM D 4052	g/ML	0,8076	0,8041
UV Test : 10mm	Scan UV			
220nm		AU	max 0.30	0.28
230nm		AU	max 0.18	0.20
240nm		AU	max 0.08	0.04
270nm		AU	max 0.02	0.0001
Denaturant 1 Denatonium Benzoate	HLPC	g/hl p.a.	0.8 ± %10	0.85
Denaturant 2 Tersiyer Butanol	GLC	g/hl p.a.	78 ± %10	74
Chloride Content	ASTM D1722		Passes	Passes
C14 Content	EC 625/2003	cBq/Gc	Report	0.30

p.a.: 100% pure alcohol

Ethanol is agriculture origin and denatured with Bitrex and TBA.

100% of the Ethanol are originated from molasses of sugarcane.  
 Not produced through dehydration process.

Ethanol corresponds with the REGULATION (EC) No 110/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 January 2008 on the definition, description, presentation, labeling and the protection of geographical indications of spirit drinks and repealing Council Regulation (EEC) No 1576/89.