

prEN 15376:2007 (E)
EUROPEAN FUEL ETHANOL SPECIFICATION

4.4 Generally applicable requirements and related test methods

4.4.1 When tested by the methods indicated in Table 1, ethanol before denaturing shall be in accordance with the limits specified in Table 1. The test methods listed in Table 1 have been shown to be applicable to ethanol in an inter-laboratory test program [4]. Precision data from this program are incorporated in the test method.

4.4.2 In case of a need for identification of the biological origin of ethanol, a traceable record of biological origin is the recommended method.

NOTE: An alternative is age determination, which is based on the beta(minus) decay of the radioactive carbon isotope C-14 [5]. This method is considered too laborious for frequent testing, but it may be considered as a useful tool to determine cases where the audit trail approach is contested.

Table 1 - General applicable requirements and test methods for undenatured ethanol

PROPERTY	UNIT	LIMITS		TEST METHOD ^a
		Minimum	Maximum	
Ethanol content + higher saturated alcohols	% (m/m)	98,7		EC/2870/2000 - method I, Appendix II, Method B ^b
Higher saturated (C3-C5) mono-alcohols content	% (m/m)		2,0	EC/2870/2000 - method III ^b
Methanol content	% (m/m)		1,0	EC/2870/2000 - method III ^b
Water content	% (m/m)		0,300	EN 15489 ^c
Inorganic chloride content	mg/l		20,0	EN 15484 or prEN 15492 ^d
Copper content	mg/kg		0,100	EN 15488
Total acidity (expressed as acetic acid)	% (m/m)		0,007	EN 15491
Appearance		Clear and bright		Visual inspection ^c
Phosphorus content	mg/l		0,50	EN 15487
Non-volatile material content	mg/100ml		10	EC/2870/2000 - method II ^e
Sulfur content	mg/kg		10,0	EN 15485 or EN 15486 ^f