

**International Raw Material Data Sheet**  
**Ethanol 96% denat. (t-Butanol, Bitrex)**

Date: 16.09.2024

Printing date: 16.09.2024

Modification date:

Reason for modification:

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## I. GENERAL DATA

Product name: Ethanol 96% denat. (t-Butanol, Bitrex)  
INCI name: Alcohol denat.  
Purpose of use: Solvent  
Origin: SYNTHETIC, VEGAN, VEGETABLE

## II. COMPOSITION

CAS no.	Chemical substance	Value	Lower	Upper	Exp
64-17-5	Ethanol denatured	93,7000	93,6	96,0	%
7732-18-5	Water	6,1990	3,9	6,3	%
75-65-0	t-Butanol	0,1000	0,10	0,13	%
3734-33-6	Denatonium benzoate	0,0010	0,0010	0,0015	%

## III. SPECIFIED CHARACTERISTICS

### 1. General characteristics

Delivery form: liquid  
State: transparent  
Odour: alcohol-like  
Colour: colorless

### 2. Physical-chemical characteristics

No	Parameter	Range of values	Method
1	Content [mass%] <i>Ethanol</i>	93,6 - 96,0 %	Supplier's method
2	Content [mass%] <i>Water</i>	3,9 - 6,3 %	Supplier's method
3	Content [mass%] <i>t-Butanol</i>	0,10 - 0,13 %	Supplier's method
4	Content [mass%] <i>Denatonium benzoate</i>	0,0010 - 0,0015 %	Supplier's method
5	Content [mass%] <i>Methanol</i>	< 0,013 %	Supplier's method
6	Content [mass%] <i>Acid</i> (calculated as: <i>Acetic acid</i> )	< 0,0010 %	Supplier's method
7	Content [mass%] <i>Aldehyde</i>	< 0,00040 %	Supplier's method

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	(calculated as: <i>Acetaldehyde</i> )		
8	Content [mass%] <i>Ester</i> (calculated as: <i>Ethyl acetate</i> )	< 0,00025 %	Supplier's method
9	Content of [V/V%] <i>Ethanol</i>	>= 95,9 %(V)	Supplier's method
10	Dry residue before denaturing	< 0,002 %	Supplier's method
11	ash content/ignition residues before denaturing	< 0,0004 %	Supplier's method
12	Flash point (Closed cup)	12 °C	Supplier's method
13	Density (20,0 °C)	0,802 - 0,812 g/cm <sup>3</sup>	Supplier's method
14	Furfural- test 0 = negative	0	Supplier's method
15	Volatiles nitrogen base in mg / 100 cm <sup>3</sup> (calculated as N)	< 0,1	Supplier's method
16	Permanganat-test (Unit: min) before denaturing	> 23	Supplier's method
17	Fusel oil test in mg / 100 cm <sup>3</sup> (before denaturing)	< 0,3	Supplier's method
18	UV absorption 220 nm 1 cm cell (before denaturing)	< 0,3	Supplier's method
19	UV absorption 230 nm 1 cm cell (before denaturing)	< 0,18	Supplier's method
20	UV absorption 240 nm 1 cm cell (before denaturing)	< 0,08	Supplier's method
21	UV absorption 270 nm 1 cm cell (before denaturing)	< 0,02	Supplier's method

**The following parameters are to be certified for each delivery:**

Density
Fusel oil test
Permanganat-test
Volatiles nitrogen base
General description
Indication of the denaturing agent (type and amount)
Content of Ethanol
Ester
Acetaldehyde
Methanol
Acetic acid

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Denatonium benzoate
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t-Butanol
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**Additional properties:**

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