



South Biofuel Company

QUALITY SPECIFICATION

Dehydrated bioethanol

Approved by: *Vadim Lapatin, CEO*

Valid: 31.12.2016

Product description: anhydrous ethanol produced by fermentation of sugar beet molasses

Purpose of use: strictly for technical purpose, in petrochemical industry as a fuel additive

Raw material for production: sugar beet molasses according to standard **DSTU 3696-98**. Technical and quality parameters of material meant for bioethanol production.

Quality requirements Bioethanol must meet the requirements listed in the table:

Property	Units	Limits	
		Minimum	Maximum
1. Appearance and color		Clear, colorless or light yellow	
2. Density at (20±1)°C	kg/m ³	787	792
3. Involatile material content	mg/dm ³		100
4. Water content	% v/v		0,2
5. Ethanol content + organic oxygen-containing compounds	% v/v	98,3	
6. Methanol	% v/v		1
7. Cyclohexane	% v/v		--
8. Total acidity (expressed as acetic acid)	% m/m		0,007
9. Higher (C3-C5) alcohols content	g/l		12
10. Automotive petrol	% v/v	1,0	1,5
11. Sulfur content	mg/kg		10
12. Phosphorus content	mg/l		0,5
13. Copper content	mg/kg		0,1
14. Inorganic chloride content	mg/l		20,0



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QUALITY CERTIFICATE

Dehydrated bioethanol

Issued by: *analyst*

Date: **06.01.2016**

Approved by: *laboratory chief*

Tank:

Property	Units	Limits		In fact
		Minimum	Maximum	
1. Appearance and color		Clear, colorless or light yellow		
2. Density at (20±1)°C	kg/m ³	787	792	790
3. Involatile material content	mg/dm ³		100	22,0
4. Water content	% v/v		0,2	0,071
5. Ethanol content + organic oxygen-containing compounds	% v/v	98,3		98,643
6. Methanol	% v/v		1	0,183
7. Cyclohexane	% v/v		--	
8. Total acidity (expressed as acetic acid)	% m/m		0,007	0,006
9. Higher (C3-C5) alcohols content	g/l		12	0,041
10. Automotive petrol	% v/v	1,0	1,5	1,286
11. Sulfur content	mg/kg		10	
12. Phosphorus content	mg/l		0,5	
13. Copper content	mg/kg		0,1	
14. Inorganic chloride content	mg/l		20,0	