Analysis Certificate LNZ43125-1



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Analysis method: quantitative ¹H-NMR spectroscopy, Aloin according to SAA-MET004-03

Instrument: Bruker Avance III HD 500 MHz with autom. sample changer & BBO Prodigy cryo probe

HPLC- equipment Surveyor (ThermoFinnigan, San José, CA) Freeze-drying device Type 318 (Christ, Aichach-Oberbernbach, D)

Internal Standard: Nicotinic acid amid (NSA; Fluka Chemie AG, Buchs (CH), Art.-Nr. 72340; RG 9)

Aloin (Roth, Karlsruhe (D); Art.-Nr. 1481-1; RG 21)

Sample Ident.: Aloe Vera Drink Original, TOP Batch			0005979	
Description: cloudy, co	escription: cloudy, colourless liquid Lab. No:			
Spectral Service Code: LNZ43125-1 Results from: 07/02/20				
	Content [%]*	Content [mg/l]*	Origin o	of component
Aloverose (polysaccharide)	not detected		fresh Aloe Vera	
Glucose	30.3	21277.8	fresh Aloe Vera	
Malic acid	3.0	2127.8	fresh Aloe Vera	
Lactic acid	0.7	464.1	degradation (bacterial)	
Citric acid	not detected		WLM or ac	lded acidifier
WLM	not detected		whole leaf marker (WLM)	
Maltodextrin	not detected		formulation	aid for drying
Acetic acid	not detected		degradation (hydrolysis)	
Succinic acid	not detected		degradation (enzymatic)	
Fumaric acid	not detected		degradation (enzymatic)	
Sodium benzoate	not detected		added preservative	
Potassium sorbate	not detected		added preservative	
Other**	detected		unknown	
Dry matter	7.0		pH value:	not determined
Aloin***		not determined		

The content data [%] refer to dry matter. The content data [mg/l] refer to dry weight 0.7 [%] for powders.

The declaration of the sample is wrong.

^{**} Organic and inorganic compounds not to be quantified by NMR analysis.

^{***} Limit of quantification 0.1 ppm.

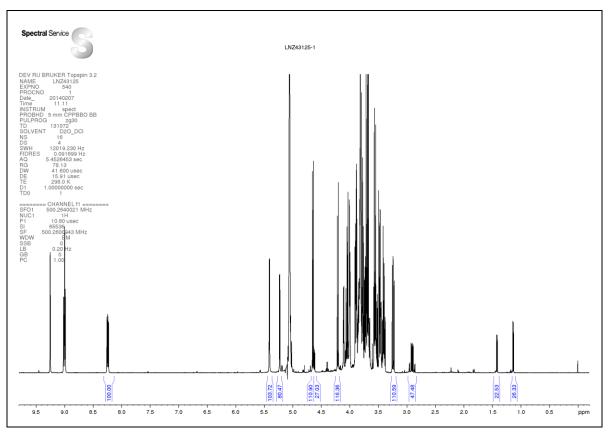


Fig. 1 ¹H-NMR spectrum of test item LNZ43125-1

Cologne, 14 February 2014

Ricarda Unger

(Chemical engineer)

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Analysis Certificate LNZ43125-2



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Analysis method: quantitative ¹H-NMR spectroscopy, Aloin according to SAA-MET004-03

Instrument: Bruker Avance III HD 500 MHz with autom. sample changer & BBO Prodigy cryo probe

HPLC- equipment Surveyor (ThermoFinnigan, San José, CA) Freeze-drying device Type 318 (Christ, Aichach-Oberbernbach, D)

Internal Standard: Nicotinic acid amid (NSA; Fluka Chemie AG, Buchs (CH), Art.-Nr. 72340; RG 9)

Aloin (Roth, Karlsruhe (D); Art.-Nr. 1481-1; RG 21)

Sample Ident.: Aloe Vera	Aloe Vera Drinking Gel, LR Health & Beauty			1240313003	
Description: cloudy, colourless liquid			Lab. No:		
Spectral Service Code: LNZ43125-2 Results from: 07/02/2014					
	Content [%]*	Content [mg/l]*	Origin (of component	
Aloverose (polysaccharide)	4.4	717.1	fresh Aloe Vera		
Glucose	5.1	824.2	fresh Aloe Vera		
Malic acid	11.0	1777.6	fresh Aloe Vera		
Lactic acid	5.8	933.3	degradation (bacterial)		
Citric acid	7.5	1212.9	WLM or added acidifier		
WLM	not detected		whole leaf marker (WLM)		
Maltodextrin	not detected		formulation	n aid for drying	
Acetic acid	0.5	77.1	degradation (hydrolysis)		
Succinic acid	not detected		degradation (enzymatic)		
Fumaric acid	not detected		degradation (enzymatic)		
Sodium benzoate	not detected		added preservative		
Potassium sorbate	not detected		added preservative		
Other**	detected		unknown		
Dry matter	1.6		pH value:	not determined	
Aloin***		not determined			

The content data [%] refer to dry matter. The content data [mg/l] refer to dry weight 0.7 [%] for powders.

The sample is of Aloe Vera origin without preservative. It shows strong degradation by hydrolysis and lacto bacteria.

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^{***} Limit of quantification 0.1 ppm.

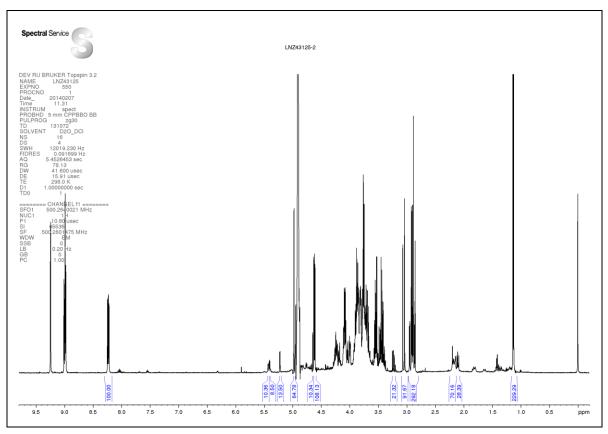


Fig. 1 ¹H-NMR spectrum of test item LNZ43125-2

Cologne, 14 February 2014

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Analysis Certificate LNZ43125-3



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Analysis method: quantitative ¹H-NMR spectroscopy, Aloin according to SAA-MET004-03

Instrument: Bruker Avance III HD 500 MHz with autom. sample changer & BBO Prodigy cryo probe

HPLC- equipment Surveyor (ThermoFinnigan, San José, CA) Freeze-drying device Type 318 (Christ, Aichach-Oberbernbach, D)

Internal Standard: Nicotinic acid amid (NSA; Fluka Chemie AG, Buchs (CH), Art.-Nr. 72340; RG 9)

Aloin (Roth, Karlsruhe (D); Art.-Nr. 1481-1;RG 21)

Sample Ident.: Aloe Ve	ent.: Aloe Vera King, OKF		Batch: 03.10.2013.	
Description: cloudy	oudy, colourless liquid Lab. No:			
Spectral Service Code: LI	ctral Service Code: LNZ43125-3 Results from: 07/02/2			
	Content [%]*	Content [mg/l]*	Origin of component	
Aloverose (polysaccharide	e) not detected		fresh Aloe Vera	
Glucos	e 36.8	33429.7	fresh Aloe Vera	
Malic aci	d not detected		fresh Aloe Vera	
Lactic aci	d 0.2	155.0	degradation (bacterial)	
Citric aci	d 1.3	1164.4	WLM or added acidifier	
WLN	not detected		whole leaf marker (WLM)	
Maltodextri	n not detected		formulation aid for drying	
Acetic aci	d not detected		degradation (hydrolysis)	
Succinic aci	d not detected		degradation (enzymatic)	
Fumaric aci	d not detected		degradation (enzymatic)	
Sodium benzoat	e not detected		added preservative	
Potassium sorbat	e not detected		added preservative	
Other*	* detected		unknown	
Dry matte	er 9.1		pH value: not determined	
Aloin**	*	not determined		

The content data [%] refer to dry matter. The content data [mg/l] refer to dry weight 0.7 [%] for powders.

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^{***} Limit of quantification 0.1 ppm.

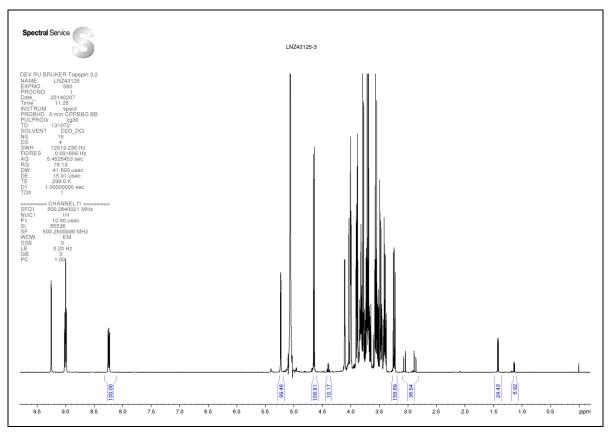


Fig. 1 ¹H-NMR spectrum of test item LNZ43125-3

Cologne, 14 February 2014

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