



TEST REPORT –GLUTEN ELISA TESTING

Client details Boston Breweries
 48 Carlisle street
 Paarden Island
 Cape Town
 For Attention Jason Wittshire

Date of Report: 13/01/2016
 Date of Sample Receipt: 07/01/2016
 Date of Analysis: 13/01/2016
 Customer Order No: Paid

Analysis ID.: 6063
 Invoice No: 160107/949
 No. of pages 1
 Enquiries: Jana du Plessis

Sample details

Client sample identification: Boston Lager Batch gf (B1808) Sample ID No 5054
 Sample conditions: Wet, Shelf-stable
 No. of samples submitted: 4 x 440mL Known sample deviations: None
 Sample drawn by: Client

Analysis details

Test description: Quantitative Gluten Testing (ELISA) Method identification: SOP-TM-001 (reference available on request)
 Additional method information: R5 Mendez, AOAC-OMA (2012.01), certified at AOAC-RI (12061), Codex Method (Type I) Deviations from standard method: None
 Method cross-reactivity: The ELISA specifically detects gluten prolamins in wheat, barley and rye. No cross reaction with soy, oats, maize, rice, millet, teff, buckwheat, quinoa and amaranth. Known factors influencing test results: None

Regulatory Aspects

According to the South African Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972) - Regulations Relating to the Labelling and Advertising of Foodstuffs, No. R. 146 (1 March 2010):

- Gluten must be declared on food product labels when present in the product, its ingredients or in its packaging material.
- The claim 'gluten-free' is not permitted for a food that: contains an ingredients that is or has been derived from any species of the significant cereals; and/or contains equal or more than 20 mg/kg gluten in the end product, when the level is determined by the R5 Mendez Enzyme-Linked Immunosorbent Assay (ELISA) for gluten, or other Codex-recommended methods.

TEST RESULTS

Method:	Method ID:	Method range of quantification:	MoU:	Your sample results (tested in duplicate)				Regulatory limits:
				Lab ref.	Gluten ^:	Unit	Interpretation:	
ELISA	SOP-TM-001 (#)	5.0 – 80.0 mg/kg (ppm) gluten	10 ppm	5054	<5.0	mg/kg (ppm)	<LLOQ	^^
				5054	<5.0	mg/kg (ppm)	<LLOQ	

Comments: Results are below the lower limit of quantification of the ELISA. Such results indicate that there may be zero or a very low level of gluten in the sample, too low to be accurately quantified with the ELISA.

<LLOQ = Below lower level of quantification of the method (#) Test conducted on site at FACTS Stellenbosch Woodmill Laboratory
 WROQ = Within range of reliable quantification of the method
 >ULOQ = Above the upper limit of quantification of the method
 MoU = Measurement of Uncertainty

^^ There are currently no specified allowable levels set for gluten in South Africa. Stipulations for 'gluten-free' claims are indicated in R.146/2010 and summarised above.

Approved by:

Jana du Plessis
 (MSc Genetics, US)
 Technical Manager and Signatory

Dr. Harris Steinman
 (MB.Ch.B. (UCT), D.Ch. (SA), D. Av. Med)

Please note that:

1. Test results relate only to the sample tested
2. The integrity of the reported result is valid only from the time of sample receipt by FACTS.
3. This report is issued by FACTS under its General Terms and Conditions of Service, available online at www.factssa.com/TermsConditions.htm
4. This report is further issued under the Service Agreement as signed by the parties thereof, and the Acceptance Note as completed and confirmed by the parties thereof.
5. Due to the deterioration of the samples, perishable samples are not stored for future enquiries, whereas non-perishables will be stored for a period of 30 days after testing has been conducted.
6. This report may not be reproduced, except in full. When only certain pages or sections of the full report are reproduced, written permission must be obtained from FACTS.
7. All opinions and interpretations expressed herein are based on test method literature, relevant legislation, sound guidance documents and/or technical knowledge and experience.

- End of Report -



TEST REPORT –GLUTEN ELISA TESTING

Client details Boston Breweries
 48 Carlisle street
 Paarden Island
 Cape Town
 For Attention Jason Wittshire

Date of Report: 15/01/2016
 Date of Sample Receipt: 07/01/2016
 Date of Analysis: 15/01/2016
 Customer Order No: Paid

Analysis ID.: 6064
 Invoice No: 160107/949
 No. of pages 1
 Enquiries: Jana du Plessis

Sample details

Client sample identification: Boston Lager Batch gf (B1808) Sample ID No 5054
 Sample conditions: Wet, Shelf-stable
 No. of samples submitted: 4 x 440mL Known sample deviations: None
 Sample drawn by: Client

Analysis details

Test description: Quantitative Gluten Testing (ELISA) Method identification: SOP-TM-101 (reference available on request)
 Additional method information: The method is used for the analysis of fermented and hydrolysed food which are decalred as gluten-free. Deviations from standard method: None
 Method cross-reactivity: The ELISA specifically detects gluten prolamins in wheat, barley and rye. No cross reaction with soy, oats, maize, rice, millet, teff, buckwheat, quinoa and amaranth. Known factors influencing test results: None

Regulatory Aspects

According to the South African Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972) - Regulations Relating to the Labelling and Advertising of Foodstuffs, No. R. 146 (1 March 2010):

- Gluten must be declared on food product labels when present in the product, its ingredients or in its packaging material.
- The claim 'gluten-free' is not permitted for a food that: contains an ingredients that is or has been derived from any species of the significant cereals; and/or contains equal or more than 20 mg/kg gluten in the end product, when the level is determined by the R5 Mendez Enzyme-Linked Immunosorbent Assay (ELISA) for gluten, or other Codex-recommended methods.

TEST RESULTS

Method:	Method ID:	Method range of quantification:	MoU:	Your sample results (tested in duplicate)				Regulatory limits:
				Lab ref.	Hydrolysed Gluten ^:	Unit	Interpretation:	
ELISA	SOP-TM-101 (#)	10.0 – 270.0 mg/kg (ppm) gluten		5054	<10.0	mg/kg (ppm)	<LLOQ	^^
				5054	<10.0	mg/kg (ppm)	<LLOQ	

Comments: Results are below the lower limit of quantification of the ELISA. Such results indicate that there may be zero or a very low level of gluten in the sample, too low to be accurately quantified with the ELISA.

<LLOQ = Below lower level of quantification of the method (#) Test conducted on site at FACTS Stellenbosch Woodmill Laboratory
 WROQ = Within range of reliable quantification of the method
 >ULOQ = Above the upper limit of quantification of the method
 MoU = Measurement of Uncertainty

^^ There are currently no specified allowable levels set for gluten in South Africa. Stipulations for 'gluten-free' claims are indicated in R.146/2010 and summarised above.

Approved by:

Jana du Plessis
 (MSc Genetics, US)
 Technical Manager and Signatory

Dr. Harris Steinman
 (MB.Ch.B. (UCT), D.Ch. (SA), D. Av. Med)

Please note that:

1. Test results relate only to the sample tested
2. The integrity of the reported result is valid only from the time of sample receipt by FACTS.
3. This report is issued by FACTS under its General Terms and Conditions of Service, available online at www.factssa.com/TermsConditions.htm
4. This report is further issued under the Service Agreement as signed by the parties thereof, and the Acceptance Note as completed and confirmed by the parties thereof.
5. Due to the deterioration of the samples, perishable samples are not stored for future enquiries, whereas non-perishables will be stored for a period of 30 days after testing has been conducted.
6. This report may not be reproduced, except in full. When only certain pages or sections of the full report are reproduced, written permission must be obtained from FACTS.
7. All opinions and interpretations expressed herein are based on test method literature, relevant legislation, sound guidance documents and/or technical knowledge and experience.

- End of Report -