

Test Report

Report No: QDAFN131203243

Date: Jan 03 2014

Client name: East Chemsources Limited
 Client address: N/A
 Sample name: CORN GLUTEN MEAL
 Sample Batch No.: /
 Product Date: /
 Manufacturer: /

Above information and sample(s) was/were submitted and certified by the client. The sample(s) identified above was/were drawn by SGS inspectors at the location, time and in the manner noted in SGS AF sampling ref. No.: AFI20131437QD

SGS Sample No.: QDAFN131203243
 SGS reference No.: TAOFD1304542701/SHAFNK131205634/TJAFF131201785FD
 Date of sample received: Dec 27 2013
 Testing period: Dec 27 2013 ~ Jan 03 2014

TEST(S) REQUESTED:

Selected test(s) as requested by applicant

TEST METHOD(S):

Protein (as dry basis): GB 5009.5-2010 National food safety standard Determination of protein in foods I
 Moisture: GB 5009.3-2010 National food safety standard Determination of moisture in foods I
 Melamine: GB/T 22388-2008 Determination of melamine in raw milk and dairy products III
 Urease quantitative analysis : SN/T 0800.4-1999 Cereals and feedstuffs for import and export - Method for the determination of urease activity
 Aflatoxin B1/B2/G1/G2: GB/T 18979-2003 Determination of aflatoxins content in food - Cleanup by immunoaffinity chromatography and determination by high-performance liquid chromatography and fluorometer
 Ochratoxin A: GB/T 23502-2009 Determination of ochratoxin A in food-High performance liquid chromatographic method with immunoaffinity column clean-up
 Zearalenone: GB/T 23504-2009 Determination of zearalenone in food - High performance liquid chromatographic method with immunoaffinity column clean-up
 Deoxynivalenol: SN/T 1571-2005 Inspection of deoxynivalenol in cereals for import and export-Liquid chromatographic method
 GMO : SN/T 1196-2012 Detection of Genetically modified Components - Maize test Method

TEST RESULT(S):

Please refer to the next page(s).



*SGS Authorized Signature

SGS-CSTC Standards Technical Services Co., Ltd. Qingdao Branch

Page 1 of 3

RAND: 9771744

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

QDAF



SGS-CSTC Standards Technical Services Co., Ltd.
 Qingdao Branch - Food Laboratory

SGS Center, No.143 Zhuzhou Road, Hi-Tech Industrial Park, Qingdao, China 266101
 中国·青岛·高科技工业园株洲路143号通标中心 邮编: 266101

t (86-532) 68999185 f (86-532) 83884538 www.sgsgroup.com.cn
 t (86-532) 68999185 f (86-532) 83884538 e sgs.china@sgs.com

TEST RESULT(S):

Test item(s)	Unit(s)	Test method(s)	Test result(s)	Method detection limit(s)
Protein (as dry basis)	g/100g	GB 5009.5-2010 I	61.6	/
Moisture	g/100g	GB 5009.3-2010 I	8.31	/
Melamine	mg/kg	GB/T 22388-2008 III	Not detected	0.05
Urease quantitative analysis	/	SN/T 0800.4-1999	<0.1	/
Aflatoxin G2	µg/kg	GB/T 18979-2003	Not detected	0.30
Aflatoxin G1	µg/kg	GB/T 18979-2003	Not detected	0.30
Aflatoxin B2	µg/kg	GB/T 18979-2003	Not detected	0.15
Aflatoxin B1	µg/kg	GB/T 18979-2003	0.96	0.25
Aflatoxin (G2+G1+B2+B1)	µg/kg	GB/T 18979-2003	<1	1
Ochratoxin A	µg/kg	GB/T 23502-2009	Not detected	1.0
Zearalenone	µg/kg	GB/T 23504-2009	275.0	20
Deoxynivalenol	mg/kg	SN/T 1571-2005	1.28	0.04

Test Items	Qualitative Analysis (Screening for the presence of genetically modified materials in samples)	
Test Methods	Real-time PCR (Polymerase Chain Reaction) system (reference standard SN/T 1196-2012)	
Test Results	Endogenous Reference Gene was detected	
	CaMV35S	Positive
	NOS	Negative
	NPT II	Positive
Test Limit	0.1%	

Remark:

- The test was carried out by a SGS laboratory.
- Protein factor is 6.25.
- The result of melamine was confirmed by LC-MS-MS.

SAMPLE DESCRIPTION: Sample in bag

SGS-CSTC Standards Technical Services Co., Ltd. Qingdao Branch

Page 2 of 3

RAND: 9771744

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

QDAF



SGS-CSTC Standards Technical Services Co., Ltd.
Qingdao Branch

SGS Center, No.143 Zhuzhou Road, Hi-Tech Industrial Park, Qingdao, China 266101
中国·青岛·高科技工业园株洲路143号通标中心 邮编: 266101

t (86-532) 68999185 f (86-532) 83884538 www.sgsgroup.com.cn
t (86-532) 68999185 f (86-532) 83884538 e sgs.china@sgs.com

Explanatory Notes to Test report

Genetically modified (GM) plants are made by intentionally introduced alien target gene to alter their some traits or quality to meet human needs. The alien target gene is usually modified in order to express its trait in plants. However, the specifically modified elements are not generally found in Non GM plants. So their identification gives a good indication that a plant had been genetically modified. Each test is based on the polymerase chain reaction (PCR). The different tests are briefly described below:

Endogenous reference gene :

The endogenous gene known to be specific for the target taxon, i. e. consistently present in the target taxon and absent in other taxa. There are at least two types of target taxon specific sequences:

- I variable number/multicopy sequences that can be used e.g. to assess the presence of nucleic acid (DNA) from the target taxon;
- I low copy number/single copy sequences that can also be used e.g. as a reference sequence to establish the background of target taxon genome equivalents in a quantitative analysis.

CaMV35S promoter: control region found at the start of the alien target gene;

NOS terminator: control region found at the end of the alien target gene;

FMV35Spromoter: 35S promoter from a modified figwort mosaic virus.

These 3 screening tests cover the majority of GM plants currently available. But we need further tests to make sure the other alien genes existence.

Npt II: neomycin-3'-phosphotransferase gene.

Cp4-EPSPS: 5-enolpyruvylshikimate-3-phosphate synthase gene.

Bt endotoxin: gene for insect resistance (one of the alien target gene).

In order to ensure the reliability of the test result, Control reactions are performed at the same time as the submitted sample are tested.

Negative DNA target control:

Reference DNA or DNA extracted from a certified reference material or known negative sample not containing the sequence under study. The control is intended to demonstrate what the result of analyses of test samples not containing the sequence under study will be.

Positive DNA target control:

Reference DNA or DNA extracted from a certified reference material or known positive sample representative of the sequence or organism under study. The control is intended to demonstrate what the result of analyses of test samples containing the target sequence will be.

Extraction blank control:

A control performing all steps of the extraction procedure, except addition of the test portion, e. g. by substitution of water for the test portion. It is used to demonstrate the absence of contaminating nucleic acid during extraction.

Limit of detection (LOD):

Limit of detection for qualitative methods is the lowest concentration or content of the analyte that can be detected reliably.

Result Comment

The comment presents a simple summary of the test data.

- 1) The sample contains GMO, i. e. DNA was isolated from the sample and found to contain GMO.
- 2) No GMO can be detected. This may be due to several reasons:
 - a) DNA was isolated from the sample but did not contain GMO;
 - b) The target DNA isolated from the sample was degraded then the DNA quality cannot meet the test request.
 - c) The sample did not contain the target DNA or the sufficient target DNA for the test.
 - d) Substances in the sample inhibited the PCR reaction

Bibliography

EN ISO/DIS 24276:2002

*** End of Report***

SGS-CSTC Standards Technical Services Co., Ltd. Qingdao Branch

Page 3 of 3

RAND: 9771744

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

QDAF



SGS-CSTC Standards Technical Services Co., Ltd.
Qingdao Branch - Food Laboratory

SGS Center, No.143 Zhuzhou Road, Hi-Tech Industrial Park, Qingdao, China 266101
中国·青岛·高科技工业园株洲路143号通标中心 邮编: 266101

t (86-532) 68999185 f (86-532) 83884538 www.sgs.com.cn
t (86-532) 68999185 f (86-532) 83884538 e sgs.china@sgs.com