Scheme Description

Gelatine (QGS)
Proficiency Testing Scheme

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RECORD OF ISSUE STATUS AND MODIFICATIONS

Issue	Issue Date	Details	Authorised by
8	Sept 2013	Updated with microbiology method codes	T.Noblett
9	Sept 2014	Minor standardisation amendments, e.g. logo and email addresses. Inclusion of traceability information in Appendix A. Inclusion of subcontracting information in 'Test Materials' section.	N. Mason
10	Sept 2015	Added mesophilic anaerobic spore count sample (605). Updated Microbiology methods for all samples. Inclusion of sample for physicochemical testing of gelatine (606). Removed Hard Copy Report information.	A.Cheetham K. Baryla A.McCarthy
11	Sept 2016	Added Enterobacteriaceae detection analyte to sample 602. Unit and DP updated for viscosity in sample 606. Change of sample weight for 606.	A.Cheetham K. Baryla
12	Sept 2018	Updated method details to 'ALL' for microbiology samples and amended Methods paragraph.	L. Chesters
13	Aug 2019	Removed 'standards' from page one	A.McCarthy
14	Sep 2020	Removed fax number, updated UKAS logo and removed hard copy report info	A.McCarthy
15	July 2021	Updated email address and UKAS logo	A Collins
16	Sept 2022	Increase of samples size for 606	L.Fielding
17	Sept 2023	Microbiology ranges updated to state cfu/g, units changed to reporting units. New sample 607 added Enumeration of yeast and mould.	M.Bell
18	June 2024	Range updated for viscosity in 606 General format of document updated. Removed references to Appendix A.	R. Connolly N. Mason

Notes: Where this document has been translated, the English version shall remain the definitive version

SCHEME INFORMATION

Scheme Aims and Organisation

The primary aim of the Quality in Gelatine Proficiency Testing Scheme (QGS) is to enable laboratories performing the microbiological analysis of gelatine to monitor their performance and compare it with that of their peers. QGS also aims to provide information to participants on technical issues and methodologies relating to the microbiological examination of gelatine.

The QGS scheme year operates from January to December. Further information about QGS, including test material availability, round despatch dates and reporting deadlines, are available on the current QGS application form.

Test Materials

Details of test materials available in QGS are given in the 'Samples Available' section. The test parameters are continually reviewed to ensure they meet the needs of current laboratory testing and regulatory requirements.

Test material batches are tested for homogeneity for at least one test parameter where deemed appropriate. Details of homogeneity tests performed and results are given in the QGS Scheme Reports.

Some aspects of the scheme, such as test material production, homogeneity testing and stability assessment, can from time to time be subcontracted. When subcontracting occurs, it is placed with a competent subcontractor and LGC is responsible for this work. The planning of the scheme, the evaluation of performance and the authorisation of the final report will never be subcontracted.

Statistical Analysis

Information on the statistics used in QGS can be found in the General Protocol and in the Scheme Report. Methods for determining assigned values and the values for SDPA used for individual samples are given in the 'Samples Available' section.

Methods

Methods are listed PORTAL. Please select the most appropriate method from the list. If none of the methods are appropriate, then please report your method as 'Other' and record a brief description in the Comments Section in PORTAL.

Results and Reports

QGS results are returned through our electronic reporting software, PORTAL, full instructions for which are provided by email.

QGS reports will be available on the website within 10 working days of round closure. Participants will be emailed a link to the report when it is available.

DESCRIPTION OF ABBREVIATIONS USED

Assigned Value (AV)

The assigned value may be derived in the following ways:

- From the robust mean (median) of participant results (RMean). This is the median of participant results after the removal of test results that are inappropriate for statistical evaluation, e.g. miscalculations, transpositions and other gross errors. Generally, the assigned value will be set using results from all methods, unless the measurement is considered method-dependant, in which case the assigned value will be set by method and indicated in the report tables. For some analytes, where there is a recognised reference method for that type of measurement, this may be used as the assigned value for a particular analyte i.e. it would be applied to results obtained by any method.

  Traceability: Assigned values which are derived from the participant results, or a sub-set of the results are not traceable to an international measurement standard. The uncertainty of assigned values derived in this way is estimated from the participant results, according to ISO 13528.

- From a formulation value (Form). This denotes the use of an assigned value derived from sample preparation details, where known and exact quantities of analyte have been used to prepare the sample.

  Traceability: Assigned values calculated from the formulation of the test sample are traceable, via an unbroken metrological traceability chain, to an international measurement standard. The measurement uncertainty of the assigned value is calculated using the contributions from each calibration in the traceability chain.

- From a qualitative formulation (Qual Form). This applies to qualitative tests where the assigned value is simply based on the presence/absence of the analyte in the test material.

  Traceability: Assigned values calculated from the qualitative formulation of the test sample are traceable to a certified reference standard or a microbiological reference strain.

- From expert labs (Expert). The assigned value for the analyte is provided by an 'expert' laboratory.

  Traceability: Assigned values provided by an 'expert' laboratory may be traceable to an international measurement standard, according to the laboratory and the method used. The uncertainty of measurement for an assigned value produced in this way will be provided by the laboratory undertaking the analysis. Details of traceability and the associated uncertainty will be provided in the report for the scheme/round.

Range

This indicates the concentration range at which the analyte may be present in the test material.

SDPA

The SDPA represents the 'standard deviation for proficiency assessment' which is used to assess participant performance for the measurement of each analyte. This may be a fixed value (as stated), a percentage (%) of the assigned value or based on the robust standard deviation of the participant measurement results, either across all methods or by method depending on whether the measurement made is method dependent (see assigned value).

Units

This indicates the units used for the assessment of data and in which participants should report their results. For some analytes in some schemes participants may have a choice of which units to report their results, however, the units stipulated in this scheme description are the default units to which any results reported using allowable alternative results will be converted to.

DP

This indicates the number of decimal places to which participants should report their measurement results.

SAMPLES AVAILABLE

MICROBIOLOGY

Sample PT-GL-601 **Presence/absence of Salmonella**
Supplied as: 25g gelatine hydrolysate

Analyte	Method	AV	Range cfu/g	SDPA	Reporting units	DP
Detection of *Salmonella* species	ALL	Qual Form	0 to 500	NA	Detected/Not detected 25g	NA

Sample PT-GL-602 **Indicator organisms**
Supplied as: 10g gelatine hydrolysate

Analyte	Method	AV	Range cfu/g	SDPA	Reporting units	DP
Total aerobic mesophilic count	ALL	RMean	0 to 1,000	$\log_{10}$ 0.35	cfu/g	0
Detection of coliforms Detection of *E.coli* Detection of Enterobacteriaceae	ALL	Qual Form	0 to 500	NA	Detected/Not detected 10g	NA

Sample PT-GL-603 **Clostridium**
Supplied as: 10g gelatine hydrolysate

Analyte	Method	AV	Range cfu/g	SDPA	Reporting units	DP
Detection of *Clostridium perfringens*	ALL	Qual Form	0 to 500	NA	Detected/Not detected 10g	NA
Enumeration of sulphite-reducing bacteria	ALL	RMean	0 to 1,000	$\log_{10}$ 0.35	cfu/g	0

Sample PT-GL-604 **Staphylococcus aureus**
Supplied as: 10g gelatine hydrolysate

Analyte	Method	AV	Range cfu/g	SDPA	Reporting units	DP
Detection of *S.aureus*	ALL	Qual Form	0 to 500	NA	Detected/Not detected 10g	NA

Sample PT-GL-605 **Anaerobic Mesophilic Spore Count**
Supplied as: 10g gelatine hydrolysate

Analyte	Method	AV	Range cfu/g	SDPA	Reporting units	DP
Enumeration of mesophilic anaerobic spores	ALL	RMean	0 to 1,000	$\log_{10}$ 0.50	cfu/g	NA

Sample PT-GL-607* **Yeast and mould**
Supplied as: 10g gelatine hydrolysate

Analyte	Method	AV	Range cfu/g	SDPA	Reporting units	DP
Enumeration of yeast	ALL	RMean	0 to 500	$\log_{10}$ 0.35	cfu/g	NA
Enumeration of mould	ALL	RMean	0 to 500	$\log_{10}$ 0.35	cfu/g	NA
Enumeration of yeast and mould	ALL	RMean	0 to 1,000	$\log_{10}$ 0.35	cfu/g	NA

*Please note that these samples are not currently within the scope of LGC's UKAS accreditation.

CHEMISTRY

Sample PT-GL-606 **Physicochemical testing of gelatine**
Supplied as: 100g gelatine

Analyte	Method	AV	Range	SDPA	Units	DP
Ash	GME method GMIA method	RMean	0.1 to 5	RSD	g/100g	2
Gel strength (Bloom)	Texture analyzer Gelometer	RMean	50 to 300	RSD	g Bloom	0
Isoelectric point	GME method GMIA method	RMean	4 to 10	RSD	-	2
Moisture	GME method GMIA method USP method	RMean	9 to 15	RSD	%	2
pH	pH meter	RMean	2 to 10	RSD	-	2
Viscosity	GME method GMIA method	RMean	0 to 10	RSD	mPas	2